RETROSPECTIVE REVIEW OF US ASSISTANCE TO AFGHANISTAN: 1950-1979

Submitted to: Elisabeth Kvitashvili
Program Development Officer
ANE/DP
Agency for International Development

Submitted by: Mr. Maurice Williams
Team Leader

Mr. John Kean
Mr. Charles Jenkins

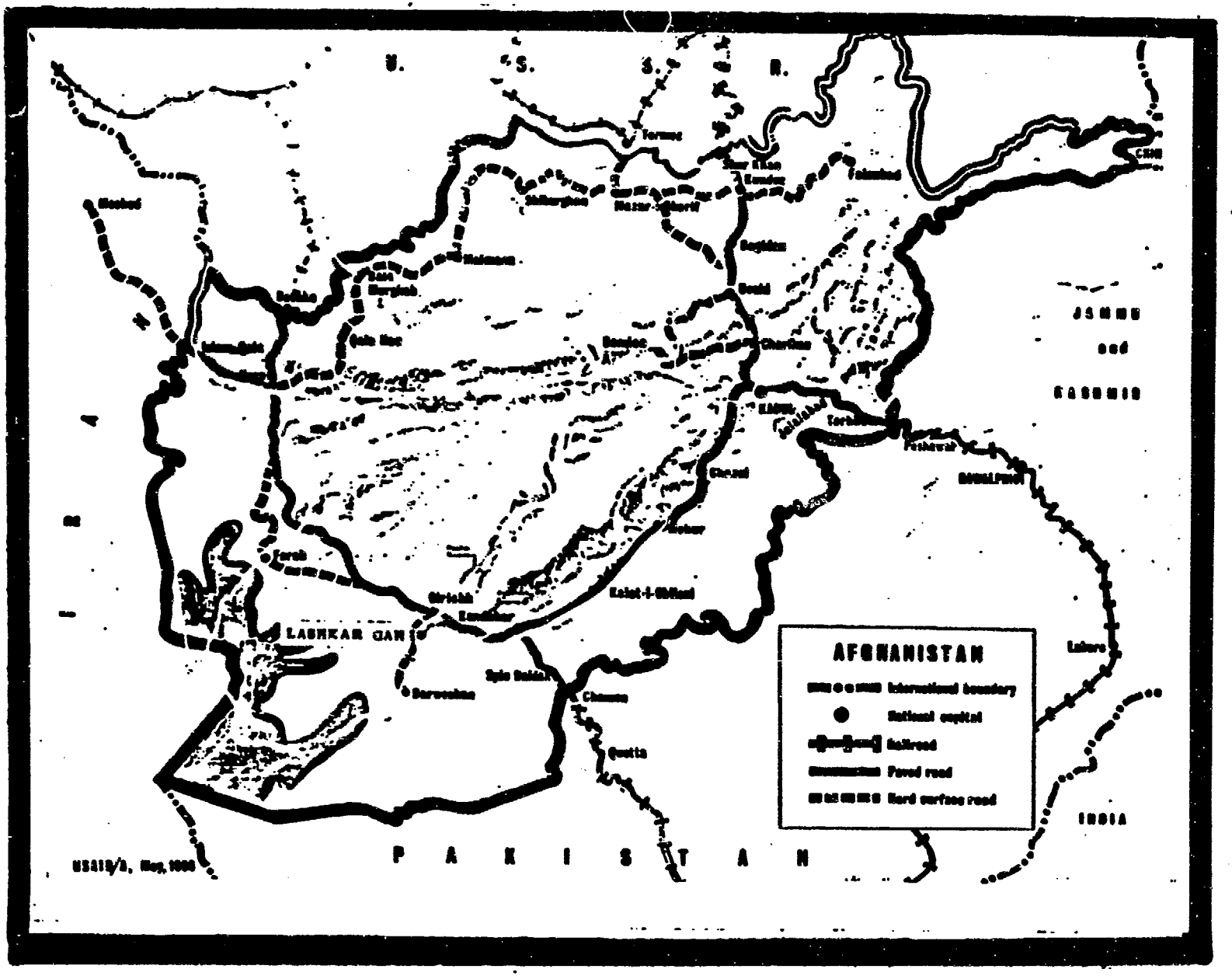
Ms. Joann Feldman
Ms. Patricia Fisher-Harris

DEVRES, INC.
7201 Wisconsin Avenue
Suite 500
Bethesda, MD 20814
(301) 951-5546
Telex: 440184 DEVR UI

Contract No.: PDC-0085-I-00-6095
Delivery Order No. 17

October 31, 1988

doc. #3


U. S. S. R.
JAMMU and KASHMIR
LASHKAR GAH
Kalat-i-Ghilzai
Chaman
Quetta
Peshawar
Lahore
INDIA
P A K I S T A N
AFGHANISTAN
International boundary
National capital
Railroad
Paved road
Hard surface road

ACRONYMS AND ABBREVIATIONS

ABM	Afghan Breshna Moassessa
ACU	Afghan Construction Unit
ADS	Afghan Demographic Studies
AFC	Afghan Fertilizer Company
AFGA	Afghan Family Guidance Association
Ag Bank	Agricultural Development Bank
AHC	Afghan Highway Constructors
AHDS	Alternative Health Delivery Systems
AID	Agency for International Development
ANM	Auxiliary Nurses Midwife
AWO	Afghan Women's Organization
BHC	Basic Health Center
Bur Rec	Bureau of Reclamation
C&T	Curriculum and Textbook Program
CAAG	Civil Aviation Assistance Group
CAP	Capital Assistance Paper
CECSAR	Center for Engineering Consulting Services and Applied Research
CIA	Central Intelligence Agency
CKD	Completely Knocked Down
CSO	Central Statistical Office
DIF	Development Information File
DCA	Department of Civil Aviation
DMA	Darul Mo Allamein
Ex-Im	Export Import Bank
FAA	Federal Aviation Administration
FAR	Fixed Amount Reimbursement
FES	Farm Economic Survey
FP	Family Planning
FRG	Federal Republic of Germany
GOA	Government of Afghanistan
HAVA	Helmand Arghandah Valley Authority
HV	Helmand Valley
HVA	Helmand Valley Authority
HYV	High Yielding Varieties
IDBA	Industrial Development Bank of Afghanistan
IECO	International Engineering Company
IPPF	International Planned Parenthood Federation
KU	Kabul University
KURC	Kabul University Research Center
KAP	Knowledge/Attitude/Practice

MAI	Ministry of Agriculture and Irrigation
MAP	Medical Assistance Program
MCH	Mother and Child Health
Mexipak	Mexican-Pakistan wheat variety
MIS	Minor Irrigation Systems
MOE	Ministry of Education
MOF	Ministry of Finance
MOPH	Ministry of Public Health
MKA	Morrison-Knudsen Afghanistan
MPW	Ministry of Public Works
MSH	Management Sciences for Health
MW	Megawatts
NOOR	National Organization for Ophthalmic Rehabilitation
Pan Am	Pan American World Airways
PAS	Public Administration Service
PASA	Participating Agency Service Agreement
PL 480	Public Law 480
PPC	Policy Planning and Coordination
PVO	Private Voluntary Agency
RDD	Rural Development Department
RGA	Royal Government of Afghanistan
SCS	Soil Conservation Service
TCCU	Teachers College of Columbia University
UMR	Usual Marketing Requirement
UN	United Nations
UNESCO	United National Education Scientific and Cultural Organization
UNDP	United Nations Development Program
USAID	United States Agency for International Development
USET	US Engineering Team (provided under contract) with consortium of US Engineering Schools to assist the Faculty of Engineering at KV)
USG	United States Government
VHW	Village Health Worker
WFP	World Food Program
WW II	World War II

TABLE OF CONTENTS

LIST OF TABLES

PREFACE

The Agency for International Development (AID) commissioned this review of US economic assistance to Afghanistan for the period 1950-1979. The review was undertaken during September-October 1988 by a team from Devres, headed by Maurice Williams and assisted by John Kean and Charles Jenkins. The objective of the review was to gain insights from the record of past US development assistance to Afghanistan as a possible guide to future US policies and programs. Issues concerning Afghan development are particularly pertinent in this period when Soviet troops are withdrawing from Afghanistan and the focus of US and international attention is on political and economic reconstruction and future development - a process which will require large-scale external assistance.

The historical record of economic assistance to Afghanistan is unique in two respects. First a very large level of aid was provided to a relatively small country which was at an early stage of development. In this sense Afghanistan provides a valuable case study in the application of development assistance theory and practice. Second, Afghanistan is a classic example of earlier "competitive coexistence" between the US and Soviet Union in their respective efforts to win political influence through economic assistance programs. In a period of little more than 25 years, from 1950 to 1976 the US and the Soviet Union committed a combined total of over $1.8 billion in economic aid for the development of Afghanistan.

Afghanistan at the time was essentially a federation of ethnic and tribal groups, with an overwhelmingly non-literate agrarian and pastoral population, ruled by a monarchy from the dominant Pushtun tribal group. Projecting the facade of a parliamentary government the real authority was exercised by the royal family in Kabul and by tribal and Muslim religious leaders in the local regions.

In the period after World War II the Afghan royal family looked to the United States - as the world's most technologically advanced country - to help them modernize their country. They boldly sought American contract assistance for large-scale area development in the Helmand Valley and American technical assistance to help transform their educational institutions. The grand schemes for economic development were matched by an equally ambitious experiment to create a constitutional monarchy within a parliamentary framework. These early experiences in democracy and development failed to achieve the expected benefits.

By 1953 Afghan rulers were disillusioned by the apparent lack of American interest in their problems and increasing US aid to Pakistan - a country which vigorously disputed Afghan claims to regain Pushtun tribal lands earlier lost to British India and now a part of Northwest Pakistan. It was a border dispute with Pakistan which opened the way for Soviet economic influence with Afghanistan.

In the decade from 1953 to 1963 Daoud Khan, with the support of the royal family, including the king, assumed leadership of the country as prime minister. Strongly authoritarian, Daoud pressed forward Pushtun border claims and countered the earlier predominant American influence in Afghan economic development by encouraging large trade and economic assistance agreements with the Soviet Union. The U.S. Government responded with a 20 fold increase in American aid and the economic competition with the Soviet Union for Afghan political favor was in full cry, a competition which had the effect of greatly strengthening Afghan government control over the economy.

Afghan political and economic development took another turn in 1963 when King Mohammad Zahir Shah, again with royal family approval, replaced Daoud and experimented for a second time with a more democratic constitutional system. This period brought improved relations between Pakistan and Afghanistan, as well as an opening for American influence to encourage more liberal private sector development of the economy.

In 1973 Daoud deposed the king and took power as President of Afghanistan, an office which he held until his assassination, along with his family and a thousand of his supporters, by a left wing coup in 1978. The political instability which followed--both within the central government and between the government and the tribal regions--led to further conflict and the invasion of Soviet troops in 1979.

Thus it can be seen from this brief outline of political events affecting government policy, that the economic development of Afghanistan over recent decades took place within a political context of experimentation, as Afghan leaders sought to forge a modern nation. These factors are likely to continue to interact in the future evolution of Afghan society.

The scope of this retrospective evaluation is limited to documentation of the main features of US economic assistance to Afghanistan over the period 1950-1979, to review the impact and strengths and weaknesses of the approaches taken, and to highlight the lessons gained from the experience as a possible guide to future U.S. policy.

EXECUTIVE SUMMARY

Scope of Review

AID commissioned this retrospective review of US economic assistance to Afghanistan for 1950-1979. During this period the US provided almost $600 million to Afghanistan.

US assistance policy toward Afghanistan was based on the premise that the country's capacity to resist communist inroads was related to its economic progress.

Summary Retrospective and Results of US Assistance to Afghanistan, 1950-1979

After World War II Afghan rulers saw the US as the world's most technologically advanced country and sought to engage American engineers and educators in their development. At Afghan initiative in the mid-1940s an ambitious program of irrigation works and road construction was begun in the Helmand Valley by an American construction firm, Morrison-Knudsen, financed by Afghanistan's slender foreign exchange resources and by follow-up loans from the US Export Import Bank--totalling a combined $60 million. The Helmand Valley program was to engage US prestige and substantial US assistance for over three decades.

By the mid-1950s Afghan leaders were disappointed in what they perceived as lukewarm US official support for their country's development. Anticipated benefits from US contractor work in the Helmand Valley were disappointing and US Point Four technical assistance averaged only $1.5 million a year over 1952-56. This level of assistance was in marked contrast with much larger US assistance for Iran and Pakistan as part of US policy to contain Soviet expansion, a fact which did not escape the attention of Afghan leaders.

If the government of Afghanistan was to realize its ambitious plans for economic development, a new strategy for gaining more foreign assistance would be necessary--a strategy which would engage both the US and Soviet Union. Accordingly the Afghan Government adopted new policy of dramatically improved relations with the Soviet Union.

Soviet Economic Aid to Afghanistan

During 1955 the Soviet leader Khruschev launched his country's first major initiative of economic assistance to a Third World country--a $100 million credit to Afghanistan on highly concessional terms. The Soviet economic aid was phased with well planned political overtures to Afghan leaders, including encouragement of Afghan claims to Pushtun tribal lands within Pakistan's northwest border.

In the 20 years after 1955 Soviet economic aid to Afghanistan totalled $1.3 billion, not including military assistance. Soviet aid projects were selected and timed for their political impact and strengthened the tendencies of Afghan leaders toward state-directed development. The Soviet program was predominantly in highway links, electric power and petroleum investment, industrial enterprises, and regional development in the Pushtun tribal lands of eastern Afghanistan.

While Soviet aid was presented to Afghan leaders mainly as "non-political" trade credits, repayable in Afghan commodities, Soviet aid progressively preempted Afghan trade and greatly influenced its pattern of development.

The US Program of Economic Assistance

The US accepted Khruschev's challenge of "competitive co-existence" in Afghanistan and increased its annual aid level 20-fold in a broad scale program of capital and technical assistance. US objectives were to offset Afghan economic dependence on the Soviet Union, strengthen Afghan links with free world countries--particularly those with Pakistan--and to blunt the force of communist economic penetration.

The US program was concentrated largely on social overhead and infrastructure investment in Afghanistan. This was investment of a long term nature which under the best of circumstances would require some 20 years to realize economic benefits. It was believed at the time that laying the foundation for economic growth would provide the best bulwark against communist penetration.

One half of the US assistance was in capital construction projects for expanding road and aviation links both within Afghanistan and with free world countries, as well as for further irrigation and power development in the Helmand Valley.

Almost a third of the US program was for training and institutional development in the areas of education, agriculture and public policy and administration--sectors seen as critical both to future economic development and to the orientation of the country. In the sectors US assistance was preeminent.

USAID's efforts in other sectors--health and sanitation, private sector development, family planning, and rural development--were on a relatively small scale, constituting about seven percent of the US funding.

As a result of the American assistance, a large number of Afghans were trained--within and outside the country--to staff newly established training institutions and the greatly expanded economic ministries and development agencies of the government. AID's education program was the most ambitious of its kind for any developing country

in the world. It built a set of higher level institutions to train future generations of leaders in economic and technical fields and a basis for later expansion of primary and secondary schools throughout the country. However, the extension of education in the areas outside Kabul proved relatively limited, given the low Afghan priority for rural development generally.

In agriculture US assistance provided key technical and training inputs necessary for production increases. Particularly successful was the program to accelerate wheat production in irrigated areas by mobilizing the provision of fertilizer and related farmer credit outside the traditional government structure. This proved to be the critical factor and it resulted in significant increases in wheat yields and substantially enhanced the country's overall food grain security.

On the whole, however, US efforts to improve the management of government services, including tax and fiscal reforms, were strikingly unsuccessful. The Afghan bureaucracy expanded but it remained a bulwark of traditional influence and patronage with limited effectiveness or outreach beyond Kabul for implementing development programs. This conclusion applied, for example, to the Ministry of Agriculture which despite large and sustained US assistance failed to develop a viable institutional capability for support of Afghan agricultural development.

Impact of Economic Assistance

Despite the widely acknowledged administrative weaknesses of the government, some observers saw its overall economic progress as remarkable considering the country's initial underdevelopment. Certainly overall annual foreign assistance of $100 million for 25 years after 1955 provided the sinews for development and a great deal of social overhead and infrastructure investment was in place.

Of the some $2.5 billion of total aid, the Soviet Union provided 60 percent and the US about 25 percent. International agencies--the World Bank, United Nations agencies, and Asian Development Bank--provided 9 percent of the total and other bilateral donors provided the remaining 6 percent.

Given the large investment in physical and social infrastructure Afghanistan in the early 1970s should have been positioned to step up the pace of productive activities and incomes. This did not happen. Economic growth barely kept up with the estimated 2 percent increase in population and this growth was largely the result of externally funded construction projects--which were now falling off--and of the enclave development largely concentrated in Kabul and a few other centers. The rest of the country had benefitted very little and 60 percent of the people were submerged in dire poverty.

Afghanistan's rulers and the newly educated middle class--numbering some 100,000 in a nation of 15 million--were not able to make the transition from aid-financed construction of physical facilities to their effective use through harnessing resources for ancillary productive investment and overall economic management. Given the impossibly weak government administration, it was unfortunate that Afghanistan had been encouraged to adopt a centrally directed statist approach which allowed little scope for decentralized local and private initiatives.

The paralysis in Afghan economic and development policy was in part a result of conflicting donor pressures and advice arising from the economic competition between the Soviet Union and the United States.

In the early 1970s the Afghan ruling and middle classes in Kabul were convinced that economic development had failed to yield any real benefits, and instead brought only intractable problems. This deep disillusionment extended to the system of government and led politically motivated leaders to boldly and ruthlessly experiment with new solutions.

Conclusions and Outstanding Lessons from the Aid Experience

As Afghanistan emerges from the last ten years of communist domination in Kabul and fighting in the countryside, its new leaders--and those that seek to help them--will have an opportunity to set a new course for political and economic rehabilitation. For this the lessons of the past are important.

-- Overconcentration on large capital projects by both US and Soviet aid greatly distorted realistic priorities and prospects.

Far from being complementary--as claimed by US officials at the time--the competitive coexistence of US and Soviet Union aid had strongly destabilizing economic and political effects on Afghanistan's development. This was more in the Soviet than American interest.

What is indicated for the future is broadly based local and regional development, both to correct past over-investment on centralized development and to encourage more local political autonomy.

-- The political uses of aid should be better assessed in relation to short and longer term US objectives.

Politically motivated assistance should be clearly identified and realistically programmed as to its purposes and the timing of expected benefits.

In the immediate future the priority aid tasks will be the emergency relief needs of those who have borne the brunt of fighting, and of the returning refugees. For this United Nations agencies should take the lead, both to mobilize world financial assistance and to fly the flag above conflicting factions and the disorder which is likely to follow Soviet military withdrawal.

However, relief and rehabilitation programs are closely related to the future direction of economic development which, in turn, is not politically neutral. The task of political and economic reconstruction cannot be left entirely to international agencies. The US should maintain a creditable bilateral assistance program directed to US objectives, both directly and in cooperation with other free world assistance.

-- An overly narrow focus on government-to-government aid favored Soviet objectives for centralized statist development.

A better model in future aid relations with new Afghan leaders would be to agree on general guidelines which would allow flexibility in channeling aid to private and local intermediaries who are closer to development needs and implementation problems.

-- Soviet aid credits and accumulated Afghan debt payable in commodities preempt prospects of private sector development.

The best prospects for Afghan private capital formation are in the area of trade. However, continuing large-scale aid by the Soviet Union, as part of efforts to rehabilitate its image and influence, plus outstanding debt of well over $2 billion are a heavy mortgage on prospects for private sector development.

A new Afghan leadership should be encouraged to only accept grant aid from the Soviet Union and to seek a writing off of past debt as partial reparations.

Alternatively, an international agreement could be undertaken on behalf of Afghanistan to forgive all outstanding debt owed by Afghanistan to bilateral donors as part of overall rehabilitation efforts. For the US this would involve forgiveness of about $80 million.

USAID experience demonstrates that with the right investment climate and technical services there is a potential for private investment in both agriculture and industry.

-- <u>USAID over-emphasized the efficiency of technical solutions in project preparation without enough attention to Afghan cultural and institutional factors</u>.

Over confidence in American expertise often meant that too little attention was paid to local circumstances and cultural values in AID activities. Adequate time for preparation of projects in consultation with the local people most directly concerned is particularly important. This was a specific failing of US aid in the Helmand Valley.

Often Afghan officials themselves were not well informed on the culture and attitudes of people in the rural areas. This was in part due to the diversity of ethnic cultures in the country, but also to an elitist attitude by officials who believed that local people were too uninformed to know their own interests.

-- <u>A desirable future model for Afghan development and aid, at least in the next few years, is a decentralized approach based on village and tribal networks of leadership and participation</u>.

"Locally based development" would utilize past capital investment in roads and irrigation systems and would take account of the experience of the last ten years in Afghanistan which witnessed the loss of legitimacy for central authority and the reality of local military and political influence. It would also allow time for the gradual evolution of a unified central government which almost certainly will be a common goal for the country.

Such diversified approach to aid in consultation with local Afghan leaders, which is likely to vary from locale to locale, may well require some rethinking of past AID practices, as well as recognition that in traditional societies the transfer of material benefits--including aid--is a normal source of political influence and power.

To be effective there is no substitute for AID to develop a cadre of career officers who speak the local language and are able to work closely with select Afghan leaders who have, or are able to develop, skills in building community support for local development activities.

Particularly applicable are the lessons of AID experience in the 1970s which began to focus on helping the Afghan people to grow more food, to be healthier through basic health services in the rural areas, to educate their children in primary community schools, and engage in rural works designed to promote employment and increase income. This sectoral experience is related in part II of the report.

I. OVERVIEW AND RESULTS OF US ASSISTANCE TO AFGHANISTAN 1950-79

A. Origin of the US Program

1. Nature of the economy of Afghanistan

Afghanistan in the 1950s was among the least developed countries in the world. Its economy was based on subsistence agriculture and many nomadic people raised livestock. Internal trade outside the towns was mostly by barter. Communications and transport were rudimentary and goods were largely shipped by pack-animals for there were few roads. Power development was at a beginning state. In several centers there was a handful of small factory-type complexes to gin cotton and produce soaps, leather goods, and seed oils. The principal exports were karakul sheep pelts, cotton, and fruits. Less than 8 percent of the population were estimated to be literate. (See Annex D, Economic and Social Data.)

2. Afghan initiative for Helmand Valley development

The American engagement in assisting with the development of Afghanistan was taken at the initiative of the Government of Afghanistan in signing a $17 million dollar contract in 1946 with Morrison-Knudsen (MKA), an American construction company, for an ambitious program of irrigation and highway construction in the arid Helmand Valley.[1] MKA was also to train Afghan technicians for maintenance and supply operations. Afghan financial reserves--built-up during World War II--were soon exhausted and US Export-Import Bank loans totalling $39.5 million (in 1949 and 1954) permitted construction to continue.

The project encompassed two major dams, power facilities, diversion dams, an extensive system of irrigation, roads, land reclamation and resettlements. It was a monumental program of development in a watershed draining 40 percent of the Afghan land area and affecting some 2 million people, or almost a fifth of the entire population. This program, which in some respects was beyond the capabilities of both the Afghan Government and the M-K engineers, was officially to engage US prestige and development assistance for the ensuing two decades.

For Afghanistan's leaders the Helmand Valley had been the capital of the Gharnavid civilization--a 10th century irrigation center--and is today in the heart of the Pushtun lands, the dominant tribal group of

---

[1]Morrison-Knudsen established a subsidiary, Morrison-Knudsen Afghanistan (MKA), to handle the work in Afghanistan.

the country and origin of the royal family. Thus the project engaged considerable Afghan national pride and widespread support for the restoration of ancient glories.

Reclamation of land and security of irrigation for food production were reasonable development priorities. The traditional peasant and pastoral economy produced an annual average of 3 million tons of basic food--engaging some 90 percent of the labor of its people-- for a bare margin of subsistence. Periodic drought years led to imports of 10 to 17 thousand tons of wheat and flour from the US in 1947, 1953 and 1954.

However, the Helmand project's initial scale and timing were highly unrealistic given the weak institutional capabilities for development and the shortage of Afghans able to handle the management, technical and social problems which ensued.

Morrison-Knudsen performed well in the construction of specific engineering works, but was too ready to accept the risks of shortcuts proposed by the Afghans--omitting surveys which should have been performed and agreeing to Afghan ancillary services which clearly could not be performed. As a result MKA took on tasks which it was ill-prepared to handle such as land preparation and reclamation and helping to resettle some thousands of nomads on poorly reclaimed land, functions which MKA could well have declared outside its field of competence.

Both the Afghan government and Morrison-Knudsen appear to have assumed that traditional Afghan farmers already on the land would know how to apply appropriate water and cultivation practices in the use of irrigated land. This hopeful assumption proved ill-founded.

Nor was the Export-Import Bank entirely realistic in providing a relatively limited loan for a project of such scope and complexity without a conditional requirement for adequate technical support in agricultural and water management practices. Also unrealistic were the terms of the loan for its amortization over nine years--later extended to 18 years at a rate of 4.5 percent. Comparable projects in more advanced countries would have qualified for amortization periods of up to 40 years, but these were beyond the Bank Ex-Im's authority and its directors believed that the loans should be made because American prestige was on the line in terms of providing financial support to MKA.

American prestige was the touchstone which would drive sustained and higher levels of official US funding for the Helmand Valley project over the next two decades. The American Ambassador in Kabul would report in 1958 that failure to do so would result in "chaos and dire consequences" for American political interests in that part of the world.

3. US assistance in the 1950s and the Soviet challenge

Under President Truman's Point Four program an agreement was signed in Kabul in early 1951 for a US program of technical cooperation which averaged about $1.5 million annually over the five years to 1956. US technical assistance focused on providing advisors in agriculture, vocational and general education and training Afghans in the US.

However, beginning in 1956 US development assistance jumped to an average level of over $28 million annually, largely in response to an emerging economic competition with the Soviet Union in Afghanistan.

The first Soviet aid to Afghanistan was a $3.5 million loan in 1953 for a number of small construction and industrial projects. This was followed up in 1956--on the occasion of Khrushchev's visit to Kabul--with a $100 million line of credit and an apparent Soviet intention to orient the economy and trade of Afghanistan toward the Soviet Union. Facilitating "Soviet economic penetration"--as President Eisenhower termed it--was the closing of the Pakistan border in 1955 for five months to Afghan trade--due to tension over Pushtun tribal areas--and the opportunity for the Soviet Union to provide alternative trade and transit facilities through its own territory.

In the period 1956-1960 the US accepted the challenge of "competitive co-existence" in Afghanistan and launched a broad scale program of capital and technical assistance totalling $143 million focused on Helmand Valley and agricultural development, transport, education and public administration, and natural resources.

The Helmand Valley project became a central priority of US development assistance with total US commitments reaching a level of $54 million. American technicians now assumed responsibility for the project and supplemental US funds made up for lagging Afghan commitments. For the first time the staffing needs of the Helmand area project were viewed as an integrated whole which encompassed engineering, land reclamation, agricultural research and extension and assisting with community aspects of the irrigation program. However, the shortage of qualified personnel and administrative problems, for both the Americans and Afghans, would continue to limit realization of the project's economic potential.

In addition to giving the Helmand Valley a boost and assisting broader country-wide efforts at agricultural development, the US initiated a politically significant regional program of transport assistance in roads, vehicles, and airports--and even allocated funds for the travel of Afghan pilgrims to Mecca ($195,000).

The regional transit project, estimated at $26 million, was an effort to strengthen transit and transportation facilities through Pakistan. This included improved transshipment facilities in Karachi, extension of the Pakistan rail-head into Afghanistan and upgrading the road system to Kandahar and Kabul. At the same time, the US undertook

the politically difficult task of improving relations between Pakistan and Afghanistan in the interest of secure access for Afghan trade to free world markets--an alternative to those through the Soviet Union.

A further $27 million was allocated for air transportation facilities, including airport construction, two DC-4 aircraft, and training for personnel at all levels of air control, maintenance and operations. The climax was the prestige establishment of Afghanistan's national airline, with the participation of Pan American Airways (Pan Am) and regularly scheduled air links to the outside world.

The third major area of priority US assistance was in education and public administration with funding allocations of about $10 million. Projects were undertaken in the Afghan Institute of Technology; in vocational agricultural training and at the Faculty of Agriculture and Engineering; in teachers' education, the teaching of English and university administration. Additionally the US undertook a project for advising the Afghan Ministries of Finance and Planning.

4. Political and foreign policy objectives

US political objectives in Afghanistan were first to keep Afghanistan free, and second to bring Afghanistan closer to its free world neighbors, and by so doing to lessen Afghan economic dependence on the Soviet Union and blunt the force of communist economic and political penetration in Asia.

In order to meet these political objectives for dealing with the Soviet challenge, the economic assistance program was considered the most effective tool available to the United States.

In particular, the US government was concerned with the serious drift of the Afghan economy toward the Soviet Union as a result of the large Soviet credits repayable in commodities and the opening of convenient transit facilities for Afghan trade through the Soviet Union. The massive Soviet programs--economically, culturally, diplomatically--were directed to undermining Afghanistan's free world relationships. The US FY 1958 Congressional Presentation expressed "real apprehension as to the survival of the Afghan state".

By helping Afghanistan maintain its independence and encouraging the democratic development of the country's political and economic institutions, the US hoped to nullify a major objective of Soviet policy, namely the entry of communism into Afghanistan and among the nations of South Asia. This was seen as a direct threat to US foreign policy goals in Pakistan, India and Asia generally.

The Soviet Union was perceived as seeking to counter free world security efforts centered in the Baghdad Pact. Strategically Afghanistan was seen by the US as an important "salient protruding deep into the Northern Tier of the nations of the Baghdad Pact." It would be a serious blow to US foreign policy interests and to the defenses of

the Northern Tier countries (Turkey, Iraq, Iran and Pakistan) if Afghanistan became closely aligned with the Soviet Union.

The US government concluded that the capacity of Afghanistan to resist Soviet inroads was directly dependent on its economic progress. It was important to expand US influence in fields which would have a direct impact on the Afghan population, such as agriculture and education. Should Afghanistan--through its association with the free world--be unable to achieve the necessary economic progress, then the free world would suffer a defeat which would be recognized throughout Asia.

It was for these reasons that the economic assistance program was seen as strategic to the defense of US foreign policy objectives in Afghanistan and Asia.

B. Accelerated Aid and Limits of Afghan Capacities

1. Afghan government plans for accelerated assistance

It was the Government, rather than the private merchants, of Afghanistan that played a dominant role in pressing for large scale public development projects. Afghan leaders saw the competition between the US and the Soviet Union as a golden opportunity to obtain high levels of economic assistance for accelerated modernization of Afghanistan.

The first Afghan Five Year Development Plan, 1956-1961--essentially a shopping list of projects--involved estimated expenditures of $280 million, mainly for roads, dams, airports, factories, power stations, and schools. These were largely financed by foreign assistance and carried out by foreign experts from the Soviet Union, West Germany, the United States, and the United Nations (UN). For the second Five Year Plan, 1962-66, the Afghan government projected a three-fold increase in development outlays of over $800 million and sought major commitments from the US and Soviet Union toward its financing.

American aid policy toward Afghanistan in the early 1960s, under President Kennedy's administration, sought to slow up the pace of US commitments to large capital projects. Consequently, unlike the Soviet Union, the US did not make a large advance financial commitment to the Afghan Second Plan. Rather the approach of the new US Agency for International Development (AID) was to consider capital assistance for specific, high priority project proposals in terms of Afghan "absorptive capacity" for development. This meant a priority for completing the capital projects already begun in the late 1950s and a redirection of new US assistance commitments to alleviating Afghan human and institutional constraints on development.

US assistance strategy in the 1960s was still geared to the objective of offering Afghanistan an alternative to over-reliance upon

Soviet aid. However, the USAID program was directed primarily to helping Afghanistan develop its human resources and institutions essential to progressive development and to encouraging the Afghan government to mobilize the countries own resources for development. By providing relatively large-scale technical assistance in education, agriculture, government management and economic policy and planning, the US sought not only to help Afghanistan improve its vital human and institutional capacities for development but, at the same time, to maximize American influence on these politically important areas of the society.

2. Program management and implementation constraints

a. Personnel and financial problems

The initiation of many large scale development projects by both the US and Soviet Union had severely strained Afghan capacities for implementation. It was easy enough for the Afghan Government to look to foreign engineers and construction firms to build turn-key infrastructure projects. However, it was quite difficult to find qualified Afghans to operate the completed facilities. The country faced a critical shortage of trained technical personnel which endangered the utility of much of the capital investments.

There were severe limitations on the capacity of the Afghan Government to mobilize sufficient budgetary resources to cover the local costs of the projects for which foreign exchange costs had been met by external grants and loans. Nor was it clear that the Afghan government could mobilize sufficient internal resources to perform its responsibilities for the local costs of later operation and maintenance.

The balance of payments also was a matter of concern. There was little immediate prospect of increasing export earnings during a period when there would be increasing need to make payments on past loans--both in terms of commodity payments to the Soviet Union and cash payments to the US. Trade with the Soviet Union was increasing and in the early 1960s constituted 40 percent of total Afghan trade.

b. The impact of transit problems on AID operations

The recurrent difficulties between Afghanistan and Pakistan over Pushtun tribal lands in both countries flared up in 1961, with a resulting breaking off of diplomatic relations and an Afghan closure of the border with Pakistan. This led to a considerable disruption of Afghanistan's relatively sizeable trade to and from Free World countries, including almost all US assistance. The Soviet position in Afghanistan was strengthened as a result. Trade and transit facilities with the Soviet Union remained open.

The Afghans sought US assistance to create a new transit route through Iran to the Persian Gulf as an alternative to transit through

Pakistan. However, there was little interest in financing the construction of an extensive new road system and the additional port facilities which would be required.

Tension between Afghanistan and Pakistan over the border areas was a serious obstacle to effective US aid operations in Afghanistan. The closing of the border stalled important engineering, construction and other equipment for US financed projects for road construction, improvements in the Helmand Valley and expansion of education facilities. Over 30,000 tons of AID material destined for Afghanistan was stalled en route through Pakistan. In some cases projects were delayed for up to two years as a result, with all the attendant personnel management and cost overruns which that involved.

Several UN programs were initially in danger of being disrupted, including the World Health Organization's malaria eradication efforts, but the UN was able to ship essential supplies for Afghanistan through the Soviet Union.

It was not until after 1963 when Afghanistan lessened its political agitation over Pushtunistan that problems of transit through Pakistan began to be eased.

C. Changing Rationale of US Assistance

Over the 30 years from 1950 to 1979 US economic assistance to Afghanistan was to go through four separate phases, each with its own rationale in terms of development theory and the role of external assistance. These phases overlap in time and their elements were often combined in practice. Nevertheless, there tended to be a central organizing philosophy and principles which guided US assistance in different periods. Some have called this the changing "fads" of foreign assistance, as the changing emphasis in development programs has tended to shift priorities.

It is important to understand, or at least identify, these shifts in development thinking and assistance priorities since each had its advocates and their views strongly affected the perspective of program evaluators who look to the lessons of the past as a guide to current and future actions.

To some extent the development experience of the United States in Afghanistan, and the changing rationale for assistance, was similar to that in other Third World developing areas. But this is an over-simplification as each country is a unique entity with its own social, cultural and political dynamic. Afghanistan is a striking example in this regard.

The four phases identified were (1) Point Four technical assistance, (2) physical capital formation and growth, (3) human capital and institutional development, and (4) people-oriented development and equity.

1. Point Four technical assistance

The US initial assistance program in Afghanistan in the early 1950s--emanating from the US Point Four assistance philosophy--was directed to lifting productivity generally through the application of advanced knowledge and techniques in the use of existing tools and productive endowments and institutions. The underlying assumption is of a wide range of opportunities for raising the level of economic performance in less developed countries merely by applying advanced knowledge and techniques. It is predominantly a technology approach--independent of large capital assistance--with major application for rural and agricultural economies in order to strengthen the base for future capital formation.

The Point Four approach looked to area-wide program applications based on in-country technical missions and strongly emphasized a judicious application of capital on the basis of surveys of resources and institutions and assessments of relative priorities for investment. Its approach is that of an evolutionary development process. The early US technical assistance projects in agriculture and vocational education were in this mode.

In many ways the Point Four technical assistance approach made good economic sense for Afghanistan and elements of the approach continued to be applied by both the US and United Nations economic missions.

2. Capital-led economic growth

The development assistance approach of the late 1950s and 1960s favored capital formation, primarily for infrastructure, as the best means for moving the stagnant economies and traditional societies of Third World countries toward sustainable economic growth. Growth was essential to alleviate poverty, and accelerated growth would induce the necessary social and economic changes to break out of traditional stagnation. The main engine of growth was by raising the level of investment--both from internal savings and by foreign economic aid. This could best be done through economic planning.

The Russians were advocates of high economic growth through planned measures to force saving for infrastructure and industrial development. This "Russian model" had a wide appeal in Third World countries. Rich countries were industrialized, poor countries were agricultural; hence, the way to become rich was to invest heavily in infrastructure and manufacturing.

It was widely believed that a large injection of foreign aid for capital formation could help low-income countries accelerate economic growth, and that this, in turn, would permit them to raise the level of domestic savings for sustained investment from their own resources.

It was this model of capital-led planned economic growth, with its high level of assistance for infrastructure investment, which was pursued by both the United States and Soviet Union in their competition for economic and political influence in Afghanistan. The Government of Afghanistan initiated the process by, first, gaining American involvement in the development of the roads and dams of the Helmand Valley and, second, by courting large-scale Soviet economic assistance for industrial and infrastructure projects. Both Russian and American technicians were to advise the Afghan Ministry of Planning over several decades on how it could best be done.

3. Human capital formation and institutional development

In the 1960s the primary emphasis of American assistance was on education, training, skill formation and manpower planning--that is on what was called "human capital" and on institution building in schools and government agencies.

Specifically, AID sought to avoid matching the Russians in continuing competitive commitments of assistance for physical infrastructure investment, which the Russians continued to maintain at very high levels. The levels of infrastructure assistance were already beyond the Afghan capacity for "absorption," or for effective use and management.

The American program focused on training people to manage the enlarged capital base and generally to expand the institutional capacity for development. US projects provided large scale assistance for Kabul University and for executive and senior level training in many of the government departments and agencies. Particular emphasis was placed on improvement of financial management and the tax system as well as of the overall budget and planning processes of the government.

For Afghanistan in the 1960s, it was the managerial and domestic financial capacity, and related institutions, which appeared to be the major constraint on effective development.

4. People oriented development

In the early 1970s the emphasis of AID thinking on development assistance shifted quite markedly. There was less concern with economic growth as such which was now assumed to be of little or no benefit to most of the people. Consequently, the central development concerns of AID, and of its program in Afghanistan, were with employment, policies for direct alleviation of poverty, improving the distribution of income and the satisfaction of basic human needs. In these terms many of the past AID programs were judged to have been on the wrong track.

In AID's "new directions" for the 1970s, central planning ceased to be considered important since government allocation of resources, and state intervention generally, was seen as creating inefficiency

and, hence, more often than not retarding development. The price mechanism was seen as superior to planning.

The focus on poverty and the downgrading of physical investment and the move away from central planning was accompanied by a renewed upsurge of interest in agriculture and rural development. Most of the poor live in the countryside and are engaged in agriculture and hence a greater concern with poverty naturally led to greater interest in agriculture. Also it had been demonstrated by the "green revolution" in the application of fertilizer and high yielding seed varieties that the prospects for accelerated agricultural growth could be dramatically improved by relatively modest investment in technical change, such as expenditure on plant breeding.

Among the changing priorities of AID assistance during the 1970s were helping the Afghan people to:

-- grow more food and become self sufficient through improved distribution of new seed varieties and fertilizer,

-- be healthier by extending Basic Health Centers and medical services, including family planning services, to rural areas,

-- increase the number of primary schools and teachers' dwellings in rural areas,

-- bring improved, but simple, rural works projects for bridges, roads, irrigation works and other small-scale "rural infrastructure" needed to improve farm-to-market transportation, (and farmer income), provide for better access to health and other services, allow for more efficient use of valuable irrigation water, and provide short-term employment for under-employed rural people.

Through these programs AID sought to shift the focus of the earlier aid program to help the Afghan government provide services and other benefits which directly affect the lives of the rural population.

D. Progress of US Assistance in the 1960s

During the 1960's major American advisory and training missions directed their efforts toward introducing technological innovation and increased efficiency in the fields of education, agriculture, public administration, and private sector development. The objective of US technical assistance was to achieve changes in Afghan institutions and attitudes which would have a permanent social and cultural impact in each of these critically important fields.

1. Education and training

a. Introduction

The Government of Afghanistan recognized the development of education as of fundamental importance for economic and social progress, and to a large extent looked to the United States to formulate its education program and to help build the institutions to carry it out. In the early 1950s educational opportunities in Afghanistan were largely limited to traditional "mosque schools" taught by mullahs which reached a limited number of students. Perhaps eight percent of the population was able to read and write; and there was virtually no instruction in technical and scientific subjects.

It was evident that with such low investment in human capital the rate at which physical infrastructure could be productively utilized would be limited. Technical and administrative people were needed to make effective use of the major programs of infrastructure investment in roads, dams, power plants and other construction facilities.

Of course, infrastructure investment does achieve a measure of economic progress for it is possible to train directly, both on-the-job and in special programs, many of the technicians required to drive trucks and tractors, to engage in construction and to operate and use at least partially the completed facilities. AID underwrote a good deal of project-related training of this type, both within Afghanistan and through participant training in the US and other countries.

However, in order to lay the groundwork for long-term development the more decisive means to advance progress is through direct investment in broad education programs and institutions. Additional to the direct training of managers and technicians was the diffusion more broadly throughout the population of literacy and knowledge of new ideas necessary to instill the abilities and motivations favorable to effective use of capital investment and technology and sustained development.

AID's education program in Afghanistan was the most ambitious of its education efforts for any country in the world. Within the Afghan program, the numbers of American specialists provided for education development was much greater than in any other field.

Given this massive involvement of American education assistance, which called forth such a large array of projects and advisors, what can be discerned about the underlying education strategy pursued by the US?

The earliest thrust of the American assistance effort was in technical and vocational education. The objective was to provide technical, administrative and managerial training in support of AID programs in various sectors of the economy, including skill training for adolescents. This thrust was closely paralleled by programs for

teacher training and an Institute of Education modeled directly on American educational experience and practice. Efforts along both these paths were projected for the most part at higher and university levels of education, at strengthening the Afghan Ministry of Education, and with a major focus on development of Kabul University.

On this platform for development of higher education, AID was gradually to extend its activities in a broader outreach in areas of public education to help Afghanistan establish basic schooling opportunities for children at primary and secondary school levels.

b. American involvement as teachers and administrators

In the first stages of American assistance for an Afghan Institute of Technology, Vocational Agricultural School, Teacher Training College and subsequent projects, American advisors did much of the teaching and even functioned as administrators. The objective was the training of Afghan teachers and administrators, both in-country and abroad, to staff these newly established schools and programs.

Most of the US education advisors were provided through contracting with American universities. The first contracts were with the University of Wyoming and with Teachers College of Columbia University. Later educational advisory teams were fielded by Southern Illinois University, Indiana University, Nebraska University and a group of eleven US engineering schools.

c. Technical and higher education

Programs were developed at the Afghan Institute of Technology in civil, mechanical, electrical, aviation and construction technologies. The building and facilities provided were to make the Institute one of the finest of its kind in Asia.

The technical education in agriculture was later extended to a Faculties of Agriculture and Engineering at Kabul University. In the 1960s the Faculty of Agriculture and Engineering was split into two separate faculties, each assisted by separate teams of American university specialists.

Among the early US assistance efforts in education was an institute for the teaching of English which was soon broadened into an Institute for Education. The Institute became a center for education-related research, and teacher training as well as for curriculum development and textbook preparation. A Faculty of Education was established in the early 1960s at Kabul University--being closely modelled on, and assisted by, Teachers College of Columbia University (TCCU). The Faculty was responsible for providing professional education courses and offered a major in English.

Among the elements of American assistance to Kabul University was support in the fields of academic, student and business administration

along with a progressively expanded program for training Afghan faculty at American universities. Support for improved administration was initially provided by TCCU and in subsequent phases by other university contracts.

The US also provided funds to build and equip five new university buildings which would bring the various faculties of Kabul University into a single campus location. The new construction included an administration and classroom building, a library, an engineering building, an agricultural building and an 800-student dormitory. The construction project, entitled Education Facilities, was extended to improvements for other schools assisted by the US, including a new comprehensive school for the Helmand Valley. As part of this activity, the US assisted in the setting up a Department of School Design and Construction in the Ministry of Education.

In the early 1970s the large programs of technical education and faculty development at Kabul University were phased out. In part, this was due to recurrent student unrest which made further progress in the work of American advisors problematical. It also was asserted, at least by some, that it was time for these institutions to "graduate" from US assistance and for a shift of emphasis of US educational efforts in favor of broader coverage and improvement in the instruction of primary and secondary schools throughout the country.

At the same time, it had to be admitted that--despite large past US efforts--the capacity of Kabul University to relate its resources to the development problems of the country remained very limited. Consequently USAID continued its efforts, through a University of Nebraska team of advisors, to focus the capacity of Kabul University to contribute more meaningfully to the country's needs through introduction of curriculum changes, research and consultation services, complemented by training and guest lectureships in the US to upgrade key members of the faculty.

d. Public school education

One of the interesting "outreach" education projects was initiated in 1962 by specialists from TCCU working with the Afghan Ministry of Education in the fields of curriculum, administration, emergency teacher training, and teacher training for women. The Ministry established a Community Schools Department and Community Schools as demonstration projects. By 1968 such schools had been established in every one of Afghanistan's 28 provinces.

This type of community school which taught students to use their knowledge to improve living conditions and participate in community projects had a wide popular appeal. A number of schools of this type were set up independently by communities in various parts of the country, using volunteer labor and materials and land contributed by the Afghan people. There was an acute shortage of teachers as a result

of the expanding number of primary and village schools and an emerging teacher training program was begun in 1966.

After 14 years of American assistance to the system of primary teacher education, further development was assumed by the United Nations in 1968. US assistance turned its attention to curriculum and textbook development in the late 1960s and early 1970s.

e. Conclusion

The major US contribution to education in Afghanistan was at the University level, with a total US contribution of $53 million. The large scale assistance was directed at meeting Afghanistan's needs for higher level institutions to train Afghan leaders in important managerial and technical areas of future development. While the effect in expanding education throughout the country was relatively limited, central educational institutions were in place for what was hoped would be a later expansion of improved elementary and secondary education throughout the country.

2. Institution building in agriculture

a. US support for national agricultural development

While early US technical assistance in agriculture had been largely directed to the Helmand Valley, in the 1960s a national agricultural project extended assistance to the Ministry of Agriculture for the country as a whole. Initially its work was largely focused on the Kabul area. Twenty-two US direct hire advisors staffed projects in research, extension, irrigation, forestry, soil conservation, plant protection, agricultural machinery and tools, and agricultural credit.

The thrust of this activity was to train Afghan personnel and build the institutional capabilities of the Ministry of Agriculture and other facilities. By the mid-1960s agricultural research facilities in Kabul had been expanded, a pilot dairy was operating, and a poultry plant was producing improved chickens and hatching eggs for distribution to farmers.

Work at the Ministry of Agriculture was reorganized and expanded with the help of American technicians to better serve other areas of the country. The USAID Mission assisted in the establishment of six regional agricultural stations, each staffed with an American advisor who designed the programs to be carried out by US trained Afghan researchers. These regional stations were located in the major areas concerned with irrigated agriculture and were in addition to the US assistance in the Helmand Valley.

On the whole, however, the concentrated efforts at a multidisciplinary approach to national agricultural development failed to demonstrate measurable or permanent improvement in the Ministry of Agriculture and its programs. Although many capable Afghan technicians

were trained and potentially useful facilities were in place, a viable institution capable of sustained support for Afghan agriculture was not created. In retrospect, it is clear that the spectrum of technical activities was too broadly ambitious and beyond the managerial and professional capacities of the Ministry.

b. National drive for accelerated wheat production

In 1967 in response to a US Presidential initiative, a comprehensive American report was produced on Agricultural Development in Afghanistan with special emphasis on wheat. The Afghan Government accepted the report's recommendations to initiate an accelerated campaign to assist Afghan farmers to adopt the new fertilizer and irrigation-responsive high yielding varieties of wheat. The goal was to achieve foodgrain self-sufficiency for Afghanistan.

Both the Afghan Ministry of Agriculture and the AID Mission mobilized for the campaign. A new department in the Ministry was given responsibility for the program which combined the functions for research, extension and fertilizer distribution. The USAID Mission increased its agricultural staff to 35 technicians in full support of the Afghan efforts.

With the limited Afghan technical and managerial capabilities narrowly focused on this one well defined objective, a large measure of success was achieved. The most responsive of the wheat seeds were multiplied at the six Afghan research stations and demonstration plots were placed with some 2,000 farmers using the cultivation practices which combined improved seeds and fertilizer.

Again the Afghan Government would have to mobilize a special effort, but this did not happen until the 1971-72 failure of the rain-fed wheat crop dramatized the need for improved wheat production in irrigated areas. The principal constraints to be overcome were timely availability of credit and more effective distribution of fertilizer.

Given these well defined objectives and an urgent need for action, the Afghan Government, with US Mission assistance, devised a new credit system in which groups of farmers collectively guaranteed the repayment of credit by individual members of their group and a special effort was made to ensure fertilizer deliveries through private and government channels. This provided both the confidence and means to supply necessary fertilizer to farmers.

Impressed with the results of this emergency effort, the Government proceeded to institutionalize the process by designation of the Agriculture Development Bank to establish a credit system for both suppliers and farmers, and a private stock company was organized with competent staff to regularize the market distribution of fertilizer. USAID backed up these efforts with loans for fertilizer and continued technical assistance. The combination of available credit and accessible supplies of fertilizer for farmers increased wheat yields

significantly and facilitated a shifting of farm land to alternative crops such as cotton.

Thus USAID's record in assisting the agricultural sector in Afghanistan was mixed. It largely failed to transform the agricultural ministry which remained bound to its traditional mode of political and bureaucratic inertia. Yet when the limited Afghan technical and managerial capacity could be politically mobilized to perform specific priority tasks in an institutional setting outside the traditional constraints imposed by a line government ministry, a large measure of success was achieved in improving the productivity of irrigated agriculture in Afghanistan. The operational success of the Afghan Fertilizer company was made possible by the objective orientation of its management and staff.

3. Public administration

The Afghan government service at the end of World War II was little more than an organization for management of the Afghan King's household with minimal national functions related to tax collection, maintaining order and generally preserving the privileged position of the ruling group. Recruitment and promotion in the service gave recognition to educational attainments within the bounds of overriding and assured loyalty to traditional objectives. This essentially political orientation of the Afghan civil service did not provide a promising institutional basis for reform and modernization of the Afghan economy.

The Afghan ruling group sought accelerated economic development through maximum external assistance--for the construction of dams, roads, public buildings and factories--under the restraining control of the Afghan civil service to ensure minimum social and cultural change in traditional values and institutions. The cold war competition between the United States and the Soviet Union for political influence in Afghanistan yielded high levels of unconditionally provided economic assistance and the Afghan Government in the 1960s extended its supervision of the process through centrally administered development plans and state management of all aid-constructed facilities.

Major and sustained efforts were undertaken by the US Mission over several decades to improve the management and efficiency of government services in Afghanistan, both in key central ministries and sectoral organizations. The results were to prove highly disappointing. Many Afghans were trained and much good advise was offered for administrative improvements without, however, substantially affecting the traditional political concerns of the Afghan civil service for maintaining control with marginal institutional change.

Among the US technical assistance programs in administration were the following:

-- improving tax administration, budgeting and fiscal management in the Ministry of Finance,

-- contract advisors in the Ministry of Planning for technical services and participant training,

-- training and equipment of the civil police,

-- assistance for fiscal management and budget operations throughout government ministries from a US encouraged unit for management improvement in the Prime Minister's office,

-- inclusion of management instruction for Afghan participants sent abroad for training in technical fields assisted by USAID projects,

-- sustained US efforts to improve planning and management in the Helmand Valley,

-- initiation of a project to develop a government-wide statistical system and Central Statistical Office,

-- initiation of an ambitious demographic studies program as a basis for planning and management decisions regarding population and development matters generally,

-- direct management assistance as a key objective of USAID assistance projects in education, agriculture, rural development and basic health services,

-- participant training over a period of many years to improve executive management capabilities of key Afghan development agencies, and

-- training for legal scholars, jurists and officials of the Ministry of Justice to modernize the legal system and better serve the development needs of the nation.

Despite these varied and sustained US efforts, the Afghan civil service did not change its basic orientation. Most of its administrators were not development oriented and remained unmotivated by US standards--bound by an archaic civil service which resisted change. This is a disappointing appraisal of the results of 25 years of public administration assistance by the United States.

Afghanistan's low level of fiscal efforts in support of its development programs was particularly striking, as proposal after proposal for tax reform remained unimplemented. The Government of Afghanistan found it politically convenient to finance and largely

implement its development program with foreign aid and foreign technicians. Successive development plans remained largely shopping lists of projects despite US (and other external) advisors' efforts to urge adoption of a strategy for integrated programs aimed at self-reliant development.

4. Efforts to enhance the role of the private sector

Despite the severe limitations of government administration, Afghanistan's big push for modernization of its economy beginning in the 1950s was almost entirely in the state sector. Most of the infrastructure investment in large-scale irrigation, roads and school construction was of course in the public sector, but beyond that the public sector was made responsible for the formation and operation of national industries. State control of industrial development was favored by the traditional large landowners who sought to avoid the emergence of a politically strong mercantile middle class.

The government undertook, with foreign assistance, a number of state owned and operated companies that produced textiles, cement, sugar and metal products. Public sector expenditures on industry and mining enjoyed priority call on Afghan resources, private companies were forced to disinvest in favor of state ownership and, as a result, by 1970 nearly three-quarters of the total capital invested in industry was in government owned factories. The government then controlled all major activities in slaughtering, grain mills, printing, cement, energy production, and mineral extraction, as well as much of the banking, the tourist industry, and certain commodities in trade.

So pervasive was the state in the modern and urban sector of the economy, that middle and higher level schools of the country--largely US-assisted--were almost entirely devoted to providing their graduates to the public sector, and the state for its part was committed to their employment.

Of course, the private sector in the traditional rural economy--comprising agriculture, livestock, local trade and handicrafts--was predominant in that 85 percent of the population was dependent on these activities for their livelihood.

Private investment in the urban areas was primarily in real estate and bazaar trading and banking which dealt with money lending and foreign exchange transactions. The severe credit and other constraints on private ventures limited them largely to handicraft and small-scale industrial production.

The total national product of Afghanistan in 1976-77 was on the order of Af 115 billion, which translates to a national product of Af 8,200 per capita, or about $130. Sectoral estimates of the net domestic product and of the number of persons employed are shown in Table 2.

Table 1: Net Domestic Product and Persons Employed by Sector 1975-76

	Af billion	% of NDP	No. of Persons Employed ('000)	% of Total
Agriculture and Livestock	53.81	55.4	2492.8	52.9
Handicrafts	7.70	7.9	843.6	17.9
Industry and Mining	3.40	3.5	40.7	0.9
Construction	2.17	2.2	44.7	0.9
Transport and Communications	3.46	3.6	56.6	1.2
Commerce	11.82	12.2	257.3	5.5
Services	8.64	8.9	691.6	14.7
Other	6.09 /a	6.3	282.7 /b	6.0
TOTAL	97.09	100.0	4710.0	100.0

/a Includes housing.
/b Includes unemployed which amount to 2.7 percent of the total labor force.

Sources: Ministry of Planning, Afghan Demographic Survey (ADS): National Demographic and Family Guidance Survey of the Settled Population of Afghanistan, and World Bank estimates.

With the transition from the Daoud government in 1963, Afghanistan entered a period which appeared promising for the evolution of constitutional government under the monarchy. During the next decade AID was enccuraged to extend technical assistance in favor of private sector development. An AID financed study explored the potential for private investment in some eight product fields and also provided assistance for the drafting of a law to promote foreign and domestic private investment.

The law which was adapted in 1967 provided entrepreneurs with a variety of incentives, including tax and tariff exemptions. An investment advisory service was established and this was followed by establishment of an Investors' Association and an Industrial Development Bank. The United Nations, the British Commonwealth Secretariat and USAID worked closely together in providing technical support. Progress was made in training Afghan staff in a variety of service functions. Other USAID supported private enterprise projects

in Afghanistan were for mineral resources and coal production, the Karakul Institute and village industries development.

As a result of government encouragement and the improved climate for investment, one hundred medium sized industrial facilities were established with 86 of them in the Kabul area. A quarter of the capital provided was by foreign investors from nine countries. Twenty-eight of the enterprises were export oriented, mainly for leather and raisin processing. The remaining 72 enterprises were for import substitution, including rayon weaving, plastic products and metal fabrication.

It was clearly demonstrated that with the right investment climate and technical services there was a potential for small-scale private industrial development in Afghanistan; a potential which however was adversely affected by the uncertainty for private investment which followed Daoud's deposing of the King in 1973 and an intensification of statist policies. All banks were nationalized in 1975-76 and the state gained control of almost all industrial enterprises. The brief opening for more liberal economic and political policies had come to an abrupt end.

5. Progress of infrastructure development

a. The US assisted infrastructure program

By the end of the 1960s US economic assistance for the infrastructure development projects--undertaken in the 1950s--were largely completed. This included roads, airports, dams and power plants.

More than 500 miles of paved highway had been constructed, linking the country's major towns and commercial centers and facilitating trade with major countries. The Kabul-Qandahar highway was completed in 1966 with a distance of 300 miles with US assistance of almost $45 million. The regional highway and rail links south to Pakistan had been completed with US assistance of over $52 million. The Herat-Islam Qala highway of 77 miles with US assistance of over $9 million connects the Afghan road system with Irtan, and joins the north-south Russian built road just north of Herat.

About $9 million had been provided for motor vehicles transportation, road maintenance equipment, and equipment for improvement and maintenance of secondary roads.

To develop an airline capable of serving all sections of the country divided by mountains and not always passable by road, the US had helped finance five airports, trained pilots and technicians and provided for the purchase of airplanes and ground equipment with assistance of over $30 million.

The US had provided for the financing of $24.5 for the construction of the hydro-electric generating units (33,000 KW) at the Kajakai Dam in the northern Helmand Province, a project which was not completed until 1977. A further $9.5 million was provided in 1974-75 to finance the construction of transmission lines southward from Kajakai to the settlements of Kandahar, Lashkar Gah and Girishk.

While the construction of the Arghandab and Kajakai dams and the Boghra canal by the American firm of Morrison-Knudsen, with US Export/Import Bank financing, had been completed as early as 1959, USAID technical assistance had been involved for a decade in helping to improve the irrigation system and develop the land.

There were continuing problems associated with the drainage and poorly installed farm irrigation canals which resulted in increased salinization and lessening of the fertility of some of the land. AID technicians would be recalled to the Helmand Valley in the early 1970s to help cope with these drainage problems.

Also the Afghan government continued to press AID for further development of irrigation infrastructure and AID accepted most reluctantly the financing of $10.5 million for comprehensive development of over 31,000 hectares of land in the Shamalan area. The assistance was provided in 1968 under stringent conditions for relocation and resettlement of Shamalan resident farmers so that the land could be properly resurveyed and leveled for efficient irrigation. The Afghan government would have to renege on these conditions because of political difficulties. Four years later the project would be abandoned and the loan assistance converted to provision of equipment for the Helmand Valley Authority.

b. <u>High cost of infrastructure development to Afghanistan</u>

While initially it had appeared clever planning by the Afghan government to encourage such large foreign assistance from the US and other donors for major infrastructure development, the government lacked the resources and flexibility to accompany these large projects with the ancillary rural investments necessary to realize their potential economic benefits. For example, given the central role of agriculture in the economy, the government would need to shift its emphasis in the early 1970s from further investment in large infrastructure projects to small, more productive ancillary projects to take full advantage of the newly built irrigation systems and roads.

For a number of reasons, however, the redirection of investment priorities and resources proved almost impossible for the Afghan government. For one thing, the government was overcommitted to state enterprises in the industrial sector which were a relatively non-productive drain on its limited resources. Second, the delays in many of the large on-going infrastructure projects had preempted scarce local expertise as well as domestic funds. Further, the US and other

donors were reluctant to start new projects given the difficulties they were encountering with existing uncompleted projects. During the 15 years from 1952 to 1972, the period of the first three plans, the Afghan government channeled over 70 percent of available resources for agriculture into the large irrigation projects. This left little for investment in small scale activities which would have increased the productivity of the overall investment in infrastructure.

E. US Aid and Overall Donor Assistance

Afghanistan was able to finance its development program with foreign aid. The 1950s and 1960s Afghanistan received one of the highest levels of aid on a per capital basis of any country in the world. Foreign aid in capital projects, commodities and technical assistance totalled about $1.2 billion during the first three Afghan plans, extending from 1956 to 1972. Without this massive foreign aid the development effort would not have been possible. For example, foreign aid provided almost 90 percent of the first five year plan, 76 percent of the second and 72 percent of the third five year plan.

Over the same period, the Soviet Union accounted for 50 percent of the total aid to Afghanistan, the United States, 30 percent, and the remainder came from a large number of other countries and development assistance agencies.

1. Level of US assistance, 1949-79

US economic assistance to Afghanistan totalled $565.2 million from 1949--with the first Export Import Bank loan--to the termination of the program in 1979. Of this amount, $177.3 million was for Public Law 480 commodities.

2. Soviet economic assistance to Afghanistan

During the period from 1954 to 1976 total economic aid from the Soviet Union to Afghanistan was $1,251 million, and the Soviet countries of Eastern Europe provided an additional $40 million.

The initial opening of close economic relations between the Soviet Union and Afghanistan was the result of a political dispute in 1950 between Afghanistan and Pakistan over Pushtun tribal lands; Pakistan imposed an economic blockade on the traditional Afghan trade routes through its territory. As a result Afghanistan agreed to expand both transit and direct trade with the Soviet Union.

Two years later Afghan-Soviet trade had doubled from an initial low level of less than ten percent of total Afghan external trade. In the ensuing years Afghan trade was progressively redirected to the Soviet Union. In large part this was to be the result of expanding Soviet aid which extended credits repayable in commodity exports.

The initial Soviet aid projects in Afghanistan in the period 1950-55 were responsive to expressed Afghan needs and were implemented with dispatch and effectiveness. These projects were;

-- construction of two grain silos, a flour mill and modern bakery in Kabul and Pul-i-Khumri for $3.5 million,

-- municipal public works including purchase of road construction equipment to pave the streets of Kabul, $2.1 million,

-- a cement plant, glass making mill, and fruit processing plant provided by Czechoslovakia, $5 million,

-- construction of gasoline storage tanks in Kabul and Herat.

This was the total of Soviet aid activities prior to 1955. They found favor with the Afghan government which was pleased with the expansion of state enterprises.

The year 1955 marked a further stage in the evolution of Afghan-Soviet relations. Again Afghan tension with Pakistan led to a second blockade of Afghan transit trade through Pakistan. The Soviet Union provided free and open transit facilities in a new agreement with Afghanistan. Later in the year N.S. Khrushchev visited Afghanistan and extended a 40 year credit of $100 million at 2 percent interest in support of Afghanistan's first five year plan. During the visit Afghanistan was presented with gifts of a hospital, buses and equipment for Kabul and an airplane for the king as a "tokens" of the growing friendship between the two countries.

The follow-up agreement in 1956 provided that the Soviet Union would supply materials, equipment and technical aid for the construction of two hydro-electric stations, three vehicle repair factories, irrigation works, a physics and chemistry laboratory, reconstruction of the airport at Kabul, construction of a new airport at Begram, and a highway across the Hindu Kush mountain range through the Salang pass to Kabul. Subsequently the Soviet Union agreed to construct a 450 mile heavy duty road from Kushka on the Soviet border through Herat to Kandahar on a grant basis, estimated at $80 million.

The construction of the Nungerhar dam and irrigation projects along the Kunar River in Eastern Afghanistan afforded the first opportunity to enter the heart of the heavily populated Pushtun regions. Later Soviet credits included projects for a petroleum and mining institute, petroleum and gas exploitation in the northern regions of Afghanistan, and pipeline construction.

By 1963 Soviet aid commitments amounted to $550 million and some 2000 Soviet technicians were working in Afghanistan.

A critical aspect of the Soviet-Afghan aid relationship was military aid which under an initial agreement in 1956 was for $25

million. Subsequent agreements in the 1960s would bring the total to an estimated $200 million--and possibly higher. Afghanistan had originally requested this aid from the United States. It was the political tension with Pakistan which prompted Afghanistan to modernize its armed forces.

The major characteristics of Soviet aid were as follows:

-- credits were allotted which were usually sufficient to carry the agreed projects to completion, and generally follow-up implementation was conducted with impressive speed and continuity of effort by the Russians,

-- the selection and timing of Soviet agreements on lines of credit and projects were conducted with an excellent sense of political impact, taking maximum advantage of tensions between Afghanistan and Pakistan, and with a good understanding of Afghan political and economic concerns,

-- most of the Soviet aid provided for long term repayments in Afghan commodities or local currency,

-- initial cost estimates and lines of credit were presented in a highly favorable and competitive light--consistently below those of western countries. However, final Soviet terms were left to later final reckoning at the time of repayments,

-- the announcement of each new economic link was accompanied by extensive Soviet publicity including assurances that no political strings were involved.

Thus it came about that the Soviet Union took the leading role in financing the economic development of Afghanistan. Some observers at the time characterized the Soviet policy as a carefully controlled experiment in economic penetration. In Marxian analysis economic structures and developments cannot be divorced from having an eventually determining affect on social and political orientation.

3. US and Soviet aid compared

It can be said that the Soviet aid initiatives and program had a pervasive effect on US assistance. In a real sense the two programs were competing more in political terms than economic--using economic aid as major bargaining counters with the small but influential ruling group in the country.

Soviet technical aid, for example, was entirely provided as a component of its capital projects and only provided for the transfer of technology within that context. This was highly attractive to the Afghan government in comparison to the US Point Four type of technical assistance which focused more on filling technological gaps affecting broader sectors of the economy. Politically the US was pushed to

compete on the level of accelerated commitment of major capital project assistance.

Secondly, the Soviet political competition had the effect of narrowing US aid options most closely in the mode of assistance to the public sector of the Afghan economy. The Afghan dynastic and ruling group was strongly statist and anti-private sector. US aid in the political competition tended to have the same political effect as Soviet aid in seeking to support the ruling group's internal political position and statist view of control over the development process and the economy. This Soviet political objective of strengthening the Afghan bureaucracy so as to restrict the role of private investment and its influence was easily achieved.

While the terms of US assistance were economically more favorable than those of the Soviets since it carried larger components of grant assistance, psychologically the Afghans regarded the trade repayment conditions of Soviet aid as an assurance of neutral Soviet intentions--seeming to cast the relationship more in the nature of normal commercial relations. The Afghan officials failed to appreciate the potential leverage which mounting trade deficits provided to the Soviet Union.

The Soviets gained short-term influence over Afghan resource allocations by their emphasis on industrial projects which had a great appeal for Afghan officials who favored the expansion of state controlled enterprises and a more restricted role for the private sector. This meant that Soviet projects often tended to command readier access than US project to scarce Afghan budget and manpower resources for their operations.

Soviet and US technicians both competed for influence with the Afghan Ministries of Planning and Finance. Almost certainly the Afghan officials concerned found it easier to accept Soviet technical advice not to worry about more rigorous analysis of cost-benefit ratios and efforts to achieve financial balance and plan coherence through politically difficult administrative and tax measures. Afghan plans remained to the end essentially a shopping list of projects proposals for foreign financing and USAID-inspired proposals for budgetary and tax reforms were politely acknowledged and consistently ignored.

On the economic level, there was concern by some in Washington that the US--Soviet competition in capital project financing was leading to a serious overcommitment of Afghan capabilities and undermining the future stability of the country. Responses from the US Embassy tended to stress the complementarity of the two aid programs. There was a sectoral complementarity with the US focusing on agriculture and rural development where most of the people were--and on the educational institutions and programs which were projected to influence youth and the future leaders. In areas where both the Soviet and the US were engaged, such as roads and airports, there was an obvious geographic division of labor.

A recurrent phrase of US officials and scholars of the earlier period was that Afghanistan was the "economic Korea" of the cold war. At the same time, the US Embassy continued to assure Washington that there was no "commingling" of Soviet and US economic assistance--which was more in the nature of a policy intention rather than a reality, given the size of the US and Soviet aid programs relative to size and nature of the Afghan economy.

In retrospect, it is fairly clear that the US-Soviet economic assistance competition seriously overcommitted Afghan resources and distorted what otherwise might have been a more beneficial ordering of Afghan economic priorities.

4. Other donors and donor cooperation

a. Overall assistance levels

Economic assistance to Afghanistan from all sources totalled almost $2.3 billion in the period 1950-76. (See Table 3).

After the Soviet Union and the US, the principal country donors were the Federal Republic of Germany ($142.4 million) and China ($73 million). A number of other countries provided aid for individual project activities--totalling almost $60 million.

International development agencies also were significant contributors to Afghan economic programs providing over $200 million during the period. These were the World Bank ($97 million), United Nations agencies ($58.7 million) and the Asian Development Bank ($44.99 million).

b. Other donor activities and coordination

West German loan assistance related mainly to power stations, telecommunications, and the regional development in Paktya province. Grants were usually in the education field which sent German professors to Afghanistan and Afghan students on scholarships in Germany. The Germans provided an economic advisory group to assist the Ministry of Planning, along with the Russians and Americans.

Chinese assistance was for several agricultural projects, including a chicken farm, carp fishery, sericulture project, tea plantation, along with a Parwan province irrigation project, the Bagrami textile mill and a semi-precious stone workshop. The oil exporting Middle Eastern countries, particularly Saudi Arabia and Iran, provided funding for industrial projects and were considering major funding for infrastructure development prior to the Soviet invasion of Afghanistan.

The World Bank and Asian Development Bank have concentrated their activities largely in the agricultural and rural sectors, including

irrigation, agricultural credit, livestock, and fruit/vegetable export development, as well as primary education and road maintenance.

United Nations agencies have provided technical assistance over a broad range of fields, including agriculture, education, public health, public works, small industries, cartography, etc.

Regular donor meetings were held informally under the auspices of the United Nations Resident Representative. The USAID Mission cooperated closely with the World Bank and other donors on agricultural and rural development projects and with the Canadians, World Bank and United Nations in primary education. Overall, however, it cannot be said that donor assistance was well coordinated, either among the principal sources of external assistance or with coherent Afghan development priorities.

Table 2: Foreign Assistance to Afghanistan 1950-76

Countries and Agencies	($ million)
Soviet Union	1,251.0
Soviet East Europe	40.0
United States	565.2 *
Federal Republic of Germany (FRG)	142.4
China	73.0
World Bank	97.0
United Nations Agencies	58.7
Asian Development Bank	44.9
France	14.1
Canada	8.2
Yugoslavia	8.0
India	7.6
Japan	6.8
Sweden	4.6
United Kingdom	3.3
Australia	2.1
Other	3.9

* Including Export-Import Bank Loans

F. Impact of US Assistance

1. Economic and social impact

a. Differing perspectives on development progress

In winding up his monumental work on Afghanistan, Louis Dupree was to conclude in early 1970 that "On whatever social, economic, political, or cultural scale one wishes to use, the Afghans have made as much, if not more, progress (however defined) as any other developing nation. The problems remain, however, and the solutions are for the future."

This assessment is a useful reminder that progress may best be assessed in relation to the point from which a nation starts its climb toward modernization and how far it has come beyond that starting point. In these terms, considering Afghanistan's low level of development at the end of World War II, and the society's structure as a series of isolated, fragmented and essentially traditional and tribal communities, its economic and social progress in the 30 years to 1979--when the Soviet military invasion took place--can be seen as exceptional. On such a scale of distance traveled, Afghanistan may have made as much progress as any other developing nation, as Louis Dupree believed.

Yet progress itself had generated a number of increasingly difficult problems. How one regarded the Afghan government's capacity to deal with them colored the assessments of observers at different points of time. Louis Dupree, for example, when he wrote his assessment was guardedly optimistic about the then evolving Afghan parliamentary experiment in democracy under King Mohammad Zahir Shah. A few years later it was clear that the experiment had failed, the King had been deposed and the political prospects had changed dramatically. For many observers the outlook was much less promising.

A mood of pessimism permeated the World Bank report of 1972 which summed up the situation as follows: "The past fifteen years have been frustrating and disappointing for those concerned with development in Afghanistan. A relatively high level of aid sustained high levels of investment to little visible purpose in terms of higher standards of living for the vast majority of the population. To some extent it was inevitable that the major share of this investment would be needed for basic economic and social infrastructure, with long gestation periods. However, it has proven difficult to move from this stage to a point where effective use can be made of the infrastructure created, and a proper impetus can be provided to the kind of productive activities which result in widespread increases in income."

The World Bank report rightly saw the need for a transition away from continued high capital investment in infrastructure to more diversified economic activities but its prescription was for the

government of Afghanistan to transform its administration as an essential precondition.

For example, the Bank report continued "The responsibility for this situation lies primarily with the inadequacies of the administrative structure. This is reflected in the failure of the government to manage the large number of public enterprises efficiently, to allocate funds within projects so as to secure the maximum return, to gear up its administrative capacity to prepare projects, to implement projects efficiently through the operating ministries, and to promote the institutional and legislative changes needed to create an appropriate environment for private agricultural and industrial development."

Afghan leaders themselves had little perspective for assessing the progress of modernization in their country relative to the progressive accumulation of seemingly intractable problems. For most Afghan officials "progress was construction", best measured by the level of foreign aid commitments for construction of physical facilities. In these terms, the problems of development appeared to outweigh its advantages in the early 1970's.

While earlier high levels of external assistance had been a tremendous boost to economic activity--much of it concentrated in the greater Kabul region--total external aid peaked in 1967 and declined thereafter. By the beginning of the 1970's most of the large construction projects had been completed and there was a substantial drop in the level of construction-induced economic activity. Also, repayments on past loans were to rise and Afghanistan has few real resources capable of earning sizable sums of foreign currency.

Economic development, far from being the panacea Afghans had expected, seemed to raise successively more difficult problems. Most of the newly completed power and industrial plants were functioning at less than 50 percent of capacity, and the large irrigation schemes had neither transformed the rural economy nor entirely lessened the impact of drought on food and agricultural production in 1971-73. The clamor of the rural areas of the country for services and a better sharing of the largesse of foreign aid was becoming a problem for the government of Kabul. Meanwhile there was little success in fiscal reforms and budget deficits appeared out of control. The rate of growth of the economy was little better than the rate of population increase, and at least 60 percent of the population lived in abject poverty.

With the traditional fear-induced inaction of the Afghan bureaucracy, these cumulative problems greatly outweighed the earlier development euphoria. There was increasing frustration and disillusionment as the forward momentum of large infrastructure projects was not maintained and the expected benefits were slow to materialize. Many Afghans among the educated in the urban areas considered the economic outlook for their country to be quite bleak.

b. Tangible indications of development progress

In a period when many Afghan leaders and intellectuals appeared to be disenchanted with their development progress--and overwhelmed with the cumulative problems caused by development--in retrospect the investments provided by the US and other donors over two decades were beginning to yield important results.

By the early 1970's the foundations had been laid for sweeping economic changes in Afghanistan. There were paved roads, increased power supply, new enterprises producing metals, textiles and cement, new educational institutions turning out increasing numbers of technically trained Afghans, agricultural extension and research facilities capable of laying the foundation for higher agricultural yields and greater security of food from irrigated areas.

The heavy emphasis on road infrastructure development did much to integrate the major geographic regions of the country, and particularly the main commercial centers. A major all-weather highway network approaching 10,000 km had been developed, and over 25 percent was asphalt or concrete. In the rural areas the improved roads were bringing new ideas and causing changes in attitudes and lifestyles. However, maintenance was a problem and Afghan capabilities to handle it would need to be upgraded. Also, the secondary and tertiary roads linking rural provinces, small towns and villages were generally substandard and, in many cases, constituted real constraints on development in the rural areas.

The AID program developed a pool of trained people in the full range of fundamental fields necessary for a broad expansion of educational development, namely teacher education at various levels, educational research and administration, curriculum and teaching materials, school design and construction. Thus, the institutional base was developed to train those who could plan, lead and implement education in the future and by the late 1960s a major change had occurred in popular Afghan attitudes and demand for education for their children. Many communities throughout the country were prepared to help with local resources to build and equip community schools. AID curriculum and textbook programs, which had evolved slowly, would achieve a large measure of success in turning out materials reflecting Afghan values and future aspirations.

While the US assisted Helmand Valley--and other large irrigation projects undertaken by other donors--had been very expensive in relation to the marginal returns and many problems involved, as the technical and training inputs began to mature real economic benefits were being registered. As farmers assimilated the available technical assistance and gained experience in cultivation and water practices, the rate of economic benefits was on an upward course. This process would accelerate with the introduction of the new high-yielding seed varieties of the "green revolution" and improved farmer access of fertilizer.

With so much promising overhead investment in human and physical resources, and the clear potential of the country for continued development, why did it prove so difficult for Afghanistan to make the transition in the 1970s to a more broad based strategy of development? Clearly there were rigidities in Afghan attitudes and institutions which hampered the necessary transition.

c. Rigidities in the approach to Afghan development

Much has been written about the constraints on development in Afghanistan and although these were formidable, they were what one might expect of a largely traditional subsistence economy. What is more difficult to understand is the impasse in development outlook and direction which developed in the early 1970s. Four explanations can be postulated.

The first explanation for the impasse is the weak and highly traditional administrative service which evolved in the Afghan government. This was seen as the primary root of the problem by the World Bank report of 1972 and by others as well. Given the weak and developmentally intractable administrative structure, it is unfortunate that Afghanistan adopted such a centrally directed statist approach to development planning and administration. This was a major problem with the large over-ambitious irrigation schemes initiated by the government. For these and other investment programs, what was needed was a more decentralized mode of administration--one which encouraged local and private initiatives within a framework of guidance agreed by government leaders. This remains a preferable model of development administration for the country.

Second, Afghan leaders were strongly influenced by the Russian model of industrial development as the lead sector of the economy. The country's comparative development advantage is in its mineral and agriculture sectors and its relative location to central and south Asian markets. Public sector industrial development, for the most part, was a diversion of scarce administrative and capital resources from potentially more productive investments.

Third, the central thrust of government development concerns led to an essentially enclave form of development in Kabul and a few other urban centers which by-passed most of the rest of the country. Such duality of urban over rural development is not unusual to many developing countries, but neglect of rural areas was extremely skewed in Afghanistan. It was as if most of the country was regarded by Afghan leaders as a human and physical resource pool to be drawn on for industrial and urban development in a few centers.

Fourth, the relative paralysis and confusion in Afghan development directions was almost certainly augmented by conflicting donor pressures and advice as a result of the economic competition between the Soviet Union and the United States. Russian aid was highly

politically motivated which meant that telling the Afghans what they wanted to hear often took precedence over economically sound criteria as to scale and direction of investment.

The United States, for its part, believed that its political interests in a neutral Afghanistan were best served by serious efforts to advance Afghan development progress. This often meant telling the Afghan leaders some of the hard and less popular facts about investment standards and development priorities. Also, the US often applied standards of development assistance which were overly complex and ill-suited to Afghan circumstances. (See section G below.)

2. Political impact of US assistance

On the whole, despite some weaknesses, US economic assistance served well the political objective of keeping open the option of the Afghan government to pursue a neutral course. In the "great power game" for influence, the Russians had major advantages, not least of which was their geographic location, the size of their aid allocations, military assistance ties with the Afghan army, and diplomatic support to Afghanistan in its dispute with Pakistan on Pushtunistan border claims. These were formidable assets and the Russians played them skillfully.

However, the US economic assistance program did succeed politically in keeping open channels of communications and, for the most part, in encouraging a reasonably non-aligned posture by the Afghan government until the bitter end, which was brought about not by Soviet political and economic success but by military force and invasion.

G. Strengths and Weaknesses of US Assistance

1. Political and economic polarity of the program

For over two decades, from 1955 to 1979, the US assistance program to Afghanistan had the overriding political objective of influencing Afghan government leaders to maintain a non-aligned status--in the US competition with the Soviet Union--and the US sought to achieve this objective by heavily contributing to Afghan economic progress. Among USAID country programs, Afghanistan was unique, in the intensity of the East-West political competition and the seriousness of the economic development efforts. Inevitably in this bipolar frame of objectives any assessment is colored by the time horizon for the objectives sought as well as the angle of vision.

2. Capital-led infrastructure development

The early US assistance involvement in Afghanistan was for large-scale infrastructure projects with a long-term payout in development benefits. This was for the irrigation system, dams and roads of the Helmand Valley and the regional transportation development

project to physically secure Afghan trade and road links to free world economies. US construction firms were technologically advanced in applying capital equipment for turn-key construction projects and the speed and efficiency of their operations was impressive. The political benefits for the US were immediate.

This essentially short-term favorable impact raised Afghan expectations that ensuing economic benefits would be equally swift and dramatic. They were not, since by the very nature of capital intensive infrastructure, ancillary social overhead investments over a period of time would be required to secure over-all economic benefits. This as it turned out was a major weakness in the US infrastructure program, particularly related to Helmand Valley regional development.

The Helmand Valley irrigation project was projected on much too large and ambitious a scale for Afghanistan's level of managerial and technical development. AID's close follow-on technical assistance saved the project from becoming a complete economic and political liability for the US. Even so the low returns on such a large investment were a drag on both the Afghan economy and US prestige.

Eventually, that is after 20 years, the Helmand capital and technical investments began to pay off, but the lessons were clear: namely take on regional programs in smaller, more area discrete projects, and do the necessary advance preparations and negotiations, including not only physical surveys but careful involvement and education of the people whose livelihood would be at risk in the projects' implementation and outcome. Failure to do this advance work was a weakness of the US-aided Helmand Valley program.

In contrast to the early US program, the early Soviet capital projects yielded benefits within a five year time scale. In the late 1950s the two major donors reversed their roles with the Soviets taking on longer-term capital projects under the $100 million credit offered by Khrushchev and the US financed a number of relatively quick maturing investments, including a truck fleet, airports, airplanes and air management and maintenance facilities. These were successful in providing tangible economic benefits on a wider national scale, and strengthened over-all US capital project performance.

3. Human capital formation and institution development

a. Agricultural institutions

Due to concern that the combined infrastructure assistance of the US and other donors had overcommitted Afghan absorptive capacity, the US focused much of its new aid commitments in the 1960s on human capital and institutional development in agriculture, education and on government economic fiscal management and planning.

The US has strong capabilities for assistance in agricultural development. However, the program was to prove disappointing in the early stages in that the Afghan authorities were swamped by the broad and complex range--for Afghanistan--of technical specialties which the US brought to bear in its advisory agriculture mission. There simply were not enough trained or immediately trainable Afghan candidates to absorb the technical assistance. This was a weakness of an overly ambitious approach of technical assistance which left little lasting benefits after the departure of the American advisors. A slower build-up, more closely phased to Afghan slowly expanding human capabilities would have been better.

The greatest strength of technical assistance--for agriculture and other areas as well--was in the training provided to Afghan participants. In the early 1970s the quality of trained Afghans began to make a real difference, and when agricultural objectives were well and specifically defined, in terms of given technical applications, US agricultural assistance was successful.

Specific examples of US technically strong programs were the "accelerated wheat campaign" and fertilizer distribution through the US assisted Afghanistan Fertilizer Company for dissemination of the new high-yielding wheat varieties.

Despite several decades of broad based technical assistance to national agricultural development, viable Afghan institutions did not take root. Capable Afghan technicians had been trained and well equipped research and training facilities were in place but the Afghan directive and management capabilities could not utilize these potentials effectively. The US program had not dealt adequately with this non-agricultural aspect of institutional development, namely the problems of traditional Afghan organization and management.

Also, the high US staff turnover in the AID Mission was a weakness which worked against a sustained and more successful technical assistance program.

b. Educational institutions

The AID program in education through the first two decades of assistance was to focus primarily on higher education at Kabul University--for the development of education, engineering and technical leadership. It was a well developed program bringing to bear the best of American capabilities in these areas. The major strength of the program was the pool of trained Afghans in the full range of fields addressed. They constituted an outstanding US contribution to the longer term development of the country.

At the same time, it must be said that the content of US educational training was often more relevant to American than Afghan conditions. Greater focus on Afghanistan's conditions and emerging needs and technologies more relevant to its development would have

produced better results. As time went on some latter day efforts were made to redirect education more closely to Afghan circumstances. However, neither the Afghan authorities nor the USAID were able to ensure that the structure and emphasis of the developing education system was appropriate in the absence of a clear vision of education priorities and a strategy for meeting them.

A host of important institutions in the education sector were either initiated or transformed and their capacities greatly improved over time. These included Kabul University and the US assisted faculties of agriculture, engineering and education; the Ministry of Education, the Institute of Education, the Institute of Technology and the institution of community schools in rural villages. Building sustainable quality institutions, however, is a long-term process and a concern for quality came late to the Afghan authorities.

Given the large US aid investment of about $50 million mostly in higher education institutions, US educators associated with the AID program believed that insufficient AID support was allowed in the early 1970s for the full maturation of these Afghan institutions. However, the pressure for an overall expansion of the education system was very great despite the severe limitations of finance and trained personnel. The emergence of a strong popular demand for primary education in the late 1960s placed the Afghan authorities, and the AID Mission, in a difficult position since the Afghan budgetary priority for education was relatively low and inadequate at all levels.

A major strength of the US assistance effort was the curriculum and textbook development project which reflected well Afghan values and needs and provided a sound basis for expanding primary education in rural areas.

3. People oriented development

The "new directions" approach of AID in the early 1970s attempted to redirect US assistance in support of more direct benefits to the truly poor in rural areas. The shifting emphasis was particularly timely and appropriate for Afghanistan which had over-concentrated development priorities in large infrastructure and industrial projects primarily benefitting a few urban centers.

AID sought to strengthen its program by emphasizing relatively simple projects, well adjusted to Afghan values and capabilities, which would evolve in scale with proven experience and would be specifically directed to providing benefits for those most in need of assistance on poverty related criteria.

Thus the AID program of the mid-1970s was to emphasize relatively neglected fields of AID endeavor in Afghanistan, including rural works for income generation, public health and sanitation, population and family planning, private voluntary organizations as agents of change, and recognition in project planning and design of the role of women in

development. These were important innovations which were carried forward on a relatively small scale in several rural areas and strengthened the popular appeal of the US program.

4. The US program and policy dialogue

In the areas of sector concentration and for overall economic policies affecting the AID program, the US Mission was fairly successful in maintaining access and a policy dialogue with senior Afghan government officials on an almost continuous basis. The sheer difficulties of program implementation in Afghanistan made this an important part of AID Mission management which engaged the negotiating skills and political talents of US ambassadors and AID mission directors alike. This close rapport with senior officials was essential to further the political objectives served by the US assistance program.

However, it cannot be said that the policy dialogue process facilitated the tackling of difficult reform issues, nor that the level of assistance was ever made contingent on Afghan economic performance. The political stakes almost certainly precluded such an approach.

Rather the US mission approach was to encourage important policy reforms through a process of technical assistance advice and education of senior policy officials in the Afghan Government. The areas of policy concentration were those related to the Ministries of Planning, Finance, and Commerce, in addition to the Prime Minister's office.

Major and sustained efforts were made by American contract advisors to encourage tax and fiscal reforms, more coherent planning of development priorities and to open opportunities for private sector development. Afghan officials were highly skilled at negotiating their way around difficult reform issues and while the policy education process was certainly useful, and occasionally yielded some concessions, on the whole the economic reform efforts of the US Mission on key economic policy issues were not successful.

H. Lessons Learned from the Afghan Development Experience - Applicability for Future US Assistance

First, the US assistance program to Afghanistan after 1955 was over-ambitious, both as to scale and timing. In many ways the program was larger than could be effectively administered by either the US or Afghan governments. For both governments it was easy enough to establish project activity and agree on advisors and counterpart field staff, but it was much more difficult to recruit appropriately qualified staff. Better manpower planning on both sides would have indicated a slower pace of project commitment and activity.

Also, US expectations of the time required to achieve effective project results in Afghanistan were generally unrealistic. In particular there was a tendency to terminate technical assistance and

institutional development projects far too soon, well before they had been firmly rooted. In almost all cases experience now proves that it would have taken at least 50 percent longer for effective implementation than the normal AID estimates of that earlier period.

Second, the US generally had too much confidence in the applicability of technical solutions to complex social and economic development problems and of the appropriateness and transferability of US values and experience. This over confidence in American technical expertise, and its universal applicability, meant that too little attention was paid to local circumstances and values in the preparation and execution of aid activities. It would have been helpful to have allowed more time for field testing of project concepts with the local people who would be directly concerned. More time for field review and less intensive Washington or headquarters reviews would be sound future practice.

Unfortunately, US confidence in technical solutions was matched and even exceeded by Afghan expectations that development was a packagable commodity which could be delivered by foreign assistance in the form of turn-key construction projects. Nor were Afghan officials reliable informants in many cases of the cultural attitudes and concerns of the local people who were regarded as the passive objects of development rather than as participants or partners in the process. Ignoring these principles was to prove particularly costly in Helmand Valley resettlement, irrigation and land development schemes.

Third, generally speaking Afghan officials were often not well informed on the culture and attitudes of many of the people in local areas. This is in large part due to the diversity of tribal cultures in the country. However, it is also due to an elitist attitude which led officials in central departments to assume they knew what was best and that local people were too uninformed to know their own interests. Effective local administration and project development would need to emphasize changes in these official attitudes.

Fourth, infrastructure investment in capital project construction was far too often in advance of plans for institutional adaptation in the use of the facilities and the training of personnel for their effective operation. An exception was the civil aviation project where training of ground and maintenance personnel was well phased to airport construction and delivery of aircraft. This was a good model but it was not followed in most other US funded construction projects.

Fifth, the US aid program was at an extreme disadvantage in being so directly projected as a government-to-government program in its detailed administration when the Afghan government was so over-centralized, largely ineffective and out of touch with developments in most of the hinterland. A better model to aim for in future relations with Afghan authorities would be to agree on general guidelines which would allow flexibility in USAID channeling of aid through private and

local intermediaries who are closer to development needs and implementation problems.

Sixth, for the US to be effective in its Afghan programs AID should develop at least a small number of career officers who speak the local language, and are able to work closely with a cadre of select Afghan leaders who have, or can develop, an ability for community mobilization for local development activities and projects. This would help bridge the cultural and language barrier which was a strong deterrent to program effectiveness in the past.

Seventh, the use of aid for short-term political objectives, in the competition with the Soviet Union in Afghanistan, tended to distort sound economic rationale for development and in the process to weaken the longer-term political interests of the United States. Aid as a tool of diplomacy has its limitations when politically motivated commitments are at a much higher level--and promise more--than can reasonably be delivered in economic returns.

Politically motivated assistance should be clearly identified and realistically programmed as to its purposes and short term benefits. A good example where this was done was the financing of the travel of a given number of Afghans to the Haj and the airlifting of Afghan grapes to markets in India during the closure of the Pakistan border.

However, large capital projects undertaken largely on short-term political grounds are almost certain to promise more than they can deliver in economic benefits and to prove politically counter-productive of US interests.

Eighth, when major donors vie for influence through competitive aid commitments, weak donor coordination is the likely result and the overall effects are likely to weaken all development activities in the country. The US-Soviet aid competition in Afghanistan in the 1950s and 1960s severely strained Afghan capabilities in domestic resources and available trained manpower.

In retrospect the Soviets may have been somewhat more experienced than US personnel in forcing the allocation of Afghan resources in support of their objectives--perhaps due to their more direct experience, and prior integration, of Central Asian tribal and Muslim territories. The emphasis by some US officials on the apparent geographic and functional complementarily of the US and Soviet aid programs missed the mark as to the truly distorting effects of the competition on the allocation of scarce Afghan resources. However, in the end it was in the military arena in Afghanistan that the Soviet competition for control of the country would be decided.

II. THE SECTOR PROGRAMS

A. Introduction

In the decades from 1950 to 1979, the planners of the US programs of assistance to Afghanistan sought to make a strategic impact in several key sectors of the economy. Each was selected for the role it could play in the modernization and development of the country. In addition, the resource allocations among the sectors took account of their respective functions in shaping and directing national relationships in the region. At all times during this period, US interest in the strategic position of Afghanistan in the East-West struggle influenced program decisions. The relative levels of funding among the sectors as well as their content reflected the dual concerns with internal development and political orientation of the country.

At the initiation of US assistance in 1950 there were serious gaps and deficiencies inhibiting development in virtually all sectors. The paucity of infrastructure and institutions essential to development created a demand for large scale capital funding. Both loans and grants were used to finance roads, vehicles, aircraft, airports, electric power facilities for generation, transmission and distribution and for schools, university buildings and irrigation works.

The need for development of human resources called for the expansion of education and training. Administration and policy formulation needed to be strengthened. Technology in use in every sector was archaic. Agriculture was primitive and aimed at subsistence. Research was virtually unknown. Even the most rudimentary data and information required for planning and policy formulation did not exist. Government revenues were grossly inadequate to support expanding programs. Financial institutions to mobilize capital, extend credit or manage the monetary system were extremely inadequate. Despite its administrative weaknesses, government was disposed to reserve to itself the initiation and operation of enterprises for mining and manufacturing. Few such facilities were, however, in operation. Entrepreneurial activity in the private sector was largely limited to petty trading, the marketing abroad of a few traditional raw products and handicrafts plus imports of a few consumption goods. Under these circumstances technical assistance was essential; the needs were so great that a selective process was inevitable.

Technical assistance played a large role in every sector addressed by US assistance. Personnel in advisory capacities served as members of teams or as individuals from universities, engineering and consulting firms, many different US Federal Government agencies as well as on direct hire by AID or through personal services contracts. People were recruited not only from the US but from other countries as

well--notably the Philippines and India in technician roles, there being an inadequate number of trained Afghan personnel. Training was carried out in all sectors both within the country through formal, non-formal and on-the-job programs as well as through participant training abroad. In all, nearly 3,000 Afghans received participant training abroad mostly in the US but also at the American University of Beirut and in other nearby countries.

The tabulation below provides an indication of the relative importance of the various sectors in the total US program. The sectors are defined to present a picture of the US program as it evolved in Afghanistan and do not necessarily conform to sectors as used by AID for program presentation purposes now or in the past. The table presents dollar expenditures for all projects in each sector throughout the three decades. The sectors are listed in descending order of amounts expended. The table also indicates the value of PL480 Food for Peace assistance extended to Afghanistan. Local currency and other foreign currencies committed to activities in the sectors are not included due to the absence of information. Such currencies were, however, a significant source of funding for many activities. More detail on project funding within the sectors is provided in Annex B, Chronological List of AID Projects by Sector.

Table 3: US Program Funding by Sector

	Expenditures ($000)	Percent of Total
Transportation	110,288	36.2
Education and Human Resource Development	53,171	17.5
National Agricultural Development	42,893	14.1
Helmand Valley Development	33,537	11.0
Energy	28,669	9.4
Public Administration and Planning	15,247	5.0
Health and Population	9,738	3.2
Industry and Private Enterprise	9,364	3.1
Rural Development	1,515	0.5
Total all sectors	304,421	100.0
PL 480 Food for Peace	180,900	
Total AID and PL480	485,321	
General Mission Support	31,927	
Grand total (incl. Mission Support)	517,248	

Source: Data provided by PPC/CDIE from the AID computerized database.

For information used in preparation of the ensuing discussion of the sectoral programs in Afghanistan, it has been necessary to rely heavily on material available from AID files. The Devres team was able to select materials from the computerized files of the Center of Development Information and Evaluation (CDIE) and its contractor-operated Development Information File (DIF). This has proved to be a rich source of data and information. In addition the team has obtained information from other development agencies such as the World Bank, the UNDP and the Asian Development Bank and procured a variety of relevant published materials on Afghanistan. Even with the unstinting support of CDIE and with cooperation of other organizations, available data and information leave some significant gaps. These derive from the fact that our review involves a retrospective examination of historical data over a considerable span of time. Even the most recent period is now a decade in the past. Inevitably this has meant that many documents cited in lists and bibliographies have been stored in repositories or for other reasons are not readily accessible. In addition, information on the activities in the most recent years (the late seventies) has been limited by the political circumstances of the time and the impending closing down of the program. Those circumstances appear to have precluded some of the normal activities such as the conduct of evaluations which are a major source of information especially on program impact, sustainability and beneficiaries. The information provided in the following discussion of the sector programs reflects both the rich sources of data available and the inevitable gaps encountered.

B. Construction and Physical Infrastructure

1. Transportation facilities

a. Highway development

When the US began development activities in Afghanistan transport facilities in the country were primitive. Internal as well as external transportation was slow and costly. Afghanistan was isolated from neighboring countries and internal transportation links were poor. Transportation improvement quickly emerged as a critical need in many activities aimed at development. The closing of the border between Afghanistan and Pakistan in 1955 forced the Government of Afghanistan (GOA) to turn toward the Soviets to maintain its trade links. For the US, strategic concerns about Afghanistan's capacity to remain outside the Soviet orbit became an important consideration. The US responded by seeking to mediate the Afghan/Pakistan dispute over Pushtunistan and by improving Afghan transport links through Pakistan.

Several activities were initiated to achieve this purpose:

- Kabul-Torkham road. Design and construction support for the paving of the road link from Kabul to Torkham at the border with Pakistan were initiated in March 1957. A contractor assisted the Ministry of Public Works (MPW) in efforts to develop a modern highway department as work on the road was carried out. The training effort aimed at developing the highway department proved premature and was abandoned. Paving operations were slow and the joint US/MPW activity completed paving of only an 88 mile portion of the 159 mile road. The remainder was carried out independently by the Government of Afghanistan.

- Kandahar-Spin Baldak. In order to provide an efficient link to Karachi port in Pakistan by the shortest available route, paving of the 70 mile road from Kandahar to the border at Spin Baldak was essential. Ease of transport was further improved by extending the Pakistan Western rail line by five miles to a new terminal on the Afghan side of the border, and by providing for in-bond transit facilities at Karachi. Feasibility work was carried out in 1957. Designs and specifications for bids were completed by 1960. Work to pave the Kandahar-Spin Baldak road commenced in 1961 and was completed in 1963. The extension of the rail line and construction of terminal warehouses in Chaman was completed in 1965. Thereafter the delivery of goods to Kandahar and the Helmand Valley were substantially expedited and costs were significantly reduced. This alternate route to Karachi increased the potential for trade and fostered ties to the West.

- Kabul-Kandahar road. Construction of a modern 300 mile two lane highway from the capital to Afghanistan's second largest city, located in the southwest, greatly facilitated internal communication. The contract was carried out by a consortium known as Afghan Highway Constructors (AHC) which included Morrison-Knudsen. During the 5-year period of construction (1961-66), large numbers of Afghans participated. Some had gained experience in earlier work in Helmand Valley construction operations but many more were also trained and achieved high skill ratings as machine operators, masons, carpenters, warehouse operators, mechanics, bookkeepers, accountants, etc. This major construction operation, carried out on a turnkey basis under supervision of the US Army Corps of Engineers, was very successful in producing an extremely serviceable road on schedule and according to specifications. It reduced travel time between Kabul and Kandahar from a grueling 22-hours in good weather to an easy six-hour drive. This achievement significantly enhanced the US image in Afghanistan.

- Herat-Islam Qala. The GOA proposed in 1962 that a road connection to Iran be created along the Hari River in northwestern Afghanistan. Reconnaissance, feasibility analysis, design and specification were carried out between 1963 and 1966. When bids were sought, only one was received. It was submitted by AHC which was just finishing work on the Kabul-Kandahar road. After negotiating a reduced price with AHC the contract was awarded in August 1966. Work proceeded rapidly because AHC had a large stock of equipment in country and experienced staff already in its employ. Despite a severe storm which washed out a substantial section of the work in process in early spring 1967, the road was completed on October 16, 1967, ten months ahead of schedule.

The completion of the roads to the Pakistan border and the highway to the Iran border at Islam Qala gave Afghanistan three all-weather overland links to non-communist countries. These fostered more trade, encouraged greater contact and facilitated the maintenance of a neutral posture for Afghanistan in East-West affairs. As a result it was possible to pursue development of export strategies aimed at Western markets, giving Afghanistan a greater potential to achieve meaningful development. The major link across the southern flank of the country also contributed greatly to the integration of the national economy and was important to future development. The training accorded to the Afghans who participated, the development of road maintenance capabilities in the Ministry of Public Works, and the significant reduction in transport cost and time were also important contributions of these projects to Afghanistan's development potential.

b. Air transportation development

Between 1957 and 1968 AID supported a comprehensive program to develop air transportation within the country. This support was to enable the Afghan flag carrier, Ariana, to operate a nationwide domestic service and to serve destinations in the region and in Western Europe. In order to accomplish this large task AID provided technical assistance, training, aircraft and ground equipment which enabled Ariana to move from the use of aging small transports (DC-3s) serving only local points, through larger multi-engine craft (DC-4s and DC-6s) and eventually into the jet age with Boeing 727 aircraft. This was made possible by supporting Pan American World Airways to become a 49 percent shareholder in Ariana, and by funding a large (17-31 man) team of advisor/trainers furnished by Pan Am.

AID also strengthened the Afghan Air Authority in every phase of its operations by supporting a Civil Aviation Assistance Group (CAAG) of 15-20 advisors in air traffic control, navigation and airway maintenance communications, safety, meteorology, etc. AID provided financing for the construction of five airports and terminal facilities in Afghanistan at Kandahar (international), Herat, Jalalabad, Kunduz and Mazar-i-Sharif at a cost in excess of $20 million.

Total cost of all elements of the air transport development program exceeded $35 million in the period from 1957 to 1968. More than 50 Afghans were trained in a variety of skills under participant programs and several hundred Afghans received AID-supported training at the Civil Aviation Training Center at Kandahar, as well as on the job at various locations. Without doubt this program greatly enhanced Afghan pride and facilitated communication with the outside world.

The scope of the project and its potential for impact can be obtained from a review of the following table showing the staff involved in the various aspects of the activity in 1961, the most active year of the project:

Table 4: Personnel Engaged in Air Transportation Project 1961

Philippine Technicians (Mission-hired, assigned FAA/CAAG):	
Electronics Technicians	8
Civil and Mechanical Engineers	5
Instructors at Kandahar Aeronautical Training Center	9
Soils Laboratory Specialist	1
Communications Specialists	2
Draftsmen	4
Clerk-Stenographers	3
Staff-house Manager for Philippine Staff Houses	1
Total Philippine Technicians Contracted to USOM	33
Afghan Students in training at the Kandahar Civil Aviation Training Center.	300

Summary of Air Project Personnel Positions

Mission Direct-hire (policy, co-ordination, supervision, etc.)	3
FAA/CAAG (design, engineering, instruction supervision, instruction, reorganization of Dept. of Civil Aviation.)	22
Philippine Technicians (Mission-hired, as outlined above)	33
Pan American World Airways, Inc. (re-organization Ariana)	31
Morrison-Knudsen International Constructors (airports)	3,714
Ariana Afghan Airlines Company, Ltd.	623*
Students being trained (Kandahar) for Air Authority	300
Participants being trained in US for Air Authority	16
Participants being trained in US for Ariana	20
Air Authority personnel (headquarters and all airports)	150
Total Scheduled for Air Project as of June 30, 1961	4,912

* Pan American personnel excluded from Ariana Personnel Summary

Table 4 (continued)

Personnel by Nationalities and Elements

	U.S.	Philip.	Italian	Indian	Other	Afghan
Mission hired	3	-	-	-	-	-
FAA/Civil Aviation Asst. Group	22	-	-	-	-	-
Mission-hired (for FAA/ /CAAG)	-	33	-	-	-	-
Pan American	31	-	-	-	-	-
Ariana Afghan Airlines	3	1	-	34	2	583
Morrison-Knudsen	67	36	5	-	1	3,605
Kandahar Aero.Trng.Ctr.	-	-	-	-	-	300
Air Authority & D.C.A.	-	-	-	-	-	150
Participants - Ariana	-	-	-	-	-	20
Participants - Air Auth.	-	-	-	-	-	16
	126	70	5	34	3	4,674

Total Scheduled Personnel for Air Project, June 30, 1961 - 4,912

c. Vehicle procurement, assembly and maintenance

Beginning in 1957 US assistance funded the expansion of Afghanistan's fleet of trucks and buses, and the development of capacity for the assembly of these vehicles by the Afghan government. Maintenance facilities to be operated by the government and the private sector were financed and technical assistance personnel supported the training and start-up. This activity extending from 1957 to 1967 at a cost of $7 million included the following:

- Establishment and equipping of two vehicle workshops, one in Kabul (private) and one in Kandahar (government);
- Upgrading and equipping a vehicle workshop in Jalalahad;
- Supply of 300 tanker and truck chassis and 150 CKD bus kits for assembly together with tools and jig fixtures; and
- Management and technical advice for the workshops.

Through this project the capacity of the nation's motor transport industry was increased, as the road network was being expanded.

d. Impact and sustainability

As a result of US programs in the transportation sector:

- Afghanistan became better integrated into the regional transport network, with strong road links to Pakistan and Iran, and air services to countries in the region and beyond;

- Internal transport became much more efficient as a result of main roads developed by the US (and by the USSR on the North-south axis) in the fifties and sixties;

- Feeder and secondary roads remained an inadequate element of the national road system despite completion of highways in most areas of the country by 1968. Areas which remained isolated included: the northern slopes from Maimana to Herat and the central Hazarajat region. Only the Helmand Valley had a network of all-weather secondary and feeder roads;

- Despite substantial continuing rural isolation, the road network made a material contribution to national economic integration and linkage to foreign markets. This was a significant contributing factor to Afghanistan's capacity to achieve notable wheat production gains in the seventies, and to contemplate a potential growth strategy for the future by the late seventies;

- Although rapidly evolving technology in air transport and scarcity of technical personnel required continued development in the seventies, a modern, high-speed air communication system was created by the time US support was withdrawn in the late sixties;

- The quality of the roads and airports built with U.S. assistance was excellent. Nevertheless they required maintenance from the very outset. Training to establish institutions for this purpose and to develop needed human resources was provided. Both inadequate management and the shortage of funding for recurrent costs caused undue deterioration.

e. Lessons learned

- The attempt to use a road construction program (Kabul-Torkham) as a training ground for development of a modern highway department was inconsistent with a political imperative to achieve rapid physical results. In consequence, the training cum institution building effort had to be sacrificed in favor of getting the road built.

- Turnkey contracts for the development of infrastructure were an effective means of providing the country the needed physical facilities for modern transportation;

- Private US firms performed remarkably well under the circumstances prevailing in a remote environment with virtually no support for their operations beyond their own;

- On-the-job training of skilled and semi-skilled artisans during field operations probably produced results superior to those achieved by formal vocational training, and at lower cost;

- Cross-cultural relations appear to pose a greater barrier to technology and knowledge transfer the higher the levels of technical, managerial and administrative skills involved;

- Institutional and managerial capacity were greater barriers to progress and persisted longer than technological factors limiting effective operation of the transport sector.

2. Energy sector activities

a. Early developments: 1958-1967

Among the earliest activities undertaken under the US assistance program to Afghanistan was a project initiated in 1951 to develop mineral resources and expand coal production. Technical assistance personnel worked in Afghanistan under this project continuously from 1951 through 1967. In addition, the project supported training in the US and abroad for participants, the provision of equipment for mineral exploration, production and transport, as well as testing and assay services. Special emphasis was placed on expanding coal production for industrial and domestic use--in part to relieve the pressure on Afghanistan's dwindling forest resources.

In addition to the work on coal, Bureau of Mines advisors also carried out surveys and assisted in resolving technical problems relating to the production of beryl, chrome, talc, slate, salt and other mineral resources. Total expenditures for the project were approximately $2.8 million. Coal production at existing mines increased from 10,000 tons annually in 1951 to 30,000 tons in 1958.

After 1960 efforts were concentrated on developing new coal mines at Darra Suf where reserves were estimated at 50-60 million tons. The original objective of the program was to raise output to 150,000 tons annually. In 1964 the annual production target was reduced to a level of 30,000 tons, to be reached by 1967. In addition to providing assistance for the design and operation of the mine, US advisors helped the Ministry of Mines on management issues, coal pricing, etc. The Darra Suf output became a reliable source of fuel for domestic and industrial use in the Kabul region.

The development of modern energy facilities in the Helmand Valley had been foreseen from the early days as important to the agricultural and industrial future of the Valley. More efficient diesel generating units for Kandahar were contemplated in the Export Import Bank loan of 1954. They would have replaced the very small, high cost diesel sets MKA had installed mainly to meet its own essential needs, but this was not done. The 1956 report of the Tudor Engineering Company again recommended installation of diesels generators to supply power for Kandahar. As a result the first electric power installations financed by the US assistance program consisted of two 500 kw generators and associated electrical distribution facilities for Kandahar. Funds committed in late 1957 consisted of a $430,000 loan and a $120,000 grant to finance engineering, procurement, installation and construction. These facilities were to serve as an interim power source pending installation of hydro-electric generating capacity (also funded at the same time but never carried out) at the recently completed Arghandab Dam. They were to serve as standby power thereafter. The diesel plant was turned over to the Helmand Valley Authority (HVA) in July 1959. Thus began a continuous US association with electric power development in the region that was to last for twenty years. It proved to be a difficult part of the multi-faceted collaboration between the US and the GOA in the development of the Valley.

The 1954 Ex-Im Bank loan also provided for a hydroelectric power installation to serve about 10,000 people in the communities of Girishk, Lashkar Gah, Nadi-Ali, Chah-i-Anjirs and Marja in the Helmand Valley north of Kandahar. Generating facilities consisted of two 1500 kva alternators installed at a 25 foot drop on the Boghra canal and located three kilometers below the Boghra diversion dam. A 44 kv transmission line and primary distribution facilities were also installed. The cost was somewhat over $2 million. Very little in the way of permanent secondary transmission facilities were built, reliance being placed on the remains of old radial lines from the small town-based diesel generator sets to be displaced.

At completion in 1958 the system was turned over the HVA, but very difficult voltage and phase incompatibility problems lay ahead. At the same time no organization, or operation and maintenance personnel were available to operate the system. Efforts to provide expatriate operating staff failed. The system was therefore "mothballed" for about two years. In several tragi-comic attempts to start the plant in 1960 and 1961, inexperienced Afghan and German personnel caused major damage to the generating, distribution and end-user equipment. This necessitated major rehabilitation at a foreign exchange cost of $190,000 plus local cost for labor and materials. In 1964 AID funded the purchase of a 1000 kw diesel generator for the Girishk system. This not only provided emergency standby power, but largely overcame a serious problem which occurred seasonally because the Boghra canal had to be shut down periodically for cleaning, resulting in outage of the major power source for the area.

In addition to the technical problems confronting these early efforts to install and operate the power facilities in the Arghandab and Helmand regions, there was a struggle between HVA and the Ministry of Mines and Industries over their control. Eventually the issue was settled in favor of the Ministry by placing these facilities in the hands of the Afghan Electric Company (Breshna), an agency of the Ministry. Even so, the company had no management structure, few technical personnel and little maintenance equipment. The transmission and distribution systems were plagued with innumerable problems. These included tangled lines, varying cable sizes, no insulators on poles carrying high voltage lines, unprotected high voltage transformers installed on the ground, no meters in most locations, and many illegal hookups and unsafe service drops. As a result line losses were high, great risk and inconvenience to the public existed, and the electric company had no means to recover costs. Plainly this was a case of having become involved in a complex task on a piecemeal, unplanned basis.

In 1959, as the installation of the interim diesel power for Kandahar was completed, a design was completed to install two 32 kw hydroelectric generators at the Arghandab Dam and a transmission line to Kandahar. Funding in the form of $2.8 million from the US along with 9 million afs and 1.3 million rupees from the GOA was committed.

A further review of the potential of Arghandab Dam, and of the prospective load in the area, resulted in a 1962 re-design with larger generators (4x42.5 kva), a 69 kv transmission system both to Kandahar city and to the nearly completed Kandahar International airport, as well as primary and secondary distribution systems. The cost of this system was estimated at $5,800,000 to the US assistance program, plus local currency and Pakistani rupees for transport. On the basis of a study made in 1964, this option was determined not to be feasible, due to inadequacy of water flow in the Arghandab River to meet irrigation demand. As a result, funds for the hydro power installation at the Arghandab Dam were deobligated.

Maintenance of facilities was a continuing problem. By 1961 the generating sets in Kandahar had received little maintenance. They were subject to frequent shut-downs for periods of days due to poor maintenance arising out the lack of qualified staff, the absence of spare parts and supplies, and failure to create a management organization as facilities were put in place. During the next several years extensive technical assistance for both the Girishk and the Kandahar systems was provided, at a cost of $2.8 million. It was directed toward developing the electric company's management, maintenance and operational capability. Activities included: rehabilitating both systems, training personnel in the US and on-the-job, formulating and installing a system for setting and collecting electricity charges, and developing power-system regulations and standards.

During the mid-sixties there was modest load growth throughout the Valley region, as commercial, industrial and domestic power use increased. The old facilities were depreciating rapidly. By 1967, a comprehensive power study of the region led to a decision to install generators at the Kajakai Dam. (The dam had been completed in 1953 on the Helmand River and had been designed and built to accommodate hydro power installation when it was financed by the Export Import Bank.) In addition, the 1967 study proposed a more comprehensive institutional structure, to meet the larger regional needs required by a major power installation, and to deal with the national scene. The study proposed:

- Establishment of a separate power division within HVA, to be responsible for the generation and delivery of power to the major load centers in the area;
- Establishment of two local companies, namely the Boghra and Kandahar Electric Companies which would buy power wholesale from the HVA Power Division, and distribute it to consumers in the Girishk and Kandahar areas;
- Establishment of an Afghanistan Power Commission which would regulate the activities of power supply agencies and natural gas producers and distributors; and
- The planning and execution of an extensive program to train personnel to operate and maintain the facilities, and to manage the organizations proposed.

This set of recommendations, had it been fully accepted and implemented, would have created a rational institutional structure to operate and manage the nation's total energy sector. It was in fact only partially implemented. The Helmand and Arghandab regional arrangements were carried out but those of the mentioned level were only partially implemented.

Load growth in Kandahar was projected to continue and could not be covered by existing facilities in the area until Kajakai power could be expected to come on line. For this reason, the initial funding commitment for the Kajakai-based system expansion also provided for two new 1500 kw diesel generator sets at Kandahar. Rehabilitation of the two unconnected existing transmission and distribution systems was continuing in 1967. They were expected to be fully serviceable when that rehabilitation process was completed. Total electric generating capacity of the two systems was 5,080 kw in 1966. Despite the addition of the 3,000 kw of diesel capacity at Kandahar, the capacity was expected to increase only to 7,400 kw by 1970 because of older diesel and small hydro units becoming inoperable.

b. Kajakai hydroelectric power development 1967-1977

Early in 1964 AID commissioned a study by R.W. Beck and Associates of the future need for electric power development in the

Helmand Valley. The study was entitled; Electric Power Survey Report: Helmand and Arghandab Valleys. Beck made load projections and cost estimates of the various alternatives, and demonstrated that the installation of two 16.5 MW turbine generator units at the Kajakai Dam, plus 110 miles of 115 KV transmission lines, distribution facilities and training would be the most economical means of meeting projected demand. The estimated foreign exchange cost for the installation was $12 million plus local cost equivalent to $3.4 million.

The economic justification for the development of Kajakai power rested on projections of load growth for the 1967-78 period (by residential and commercial users, Kandahar airport and an army camp in the region) from 9.6 Mwh in 1967 to 59.8 Mwh in 1978, or an average annual compound growth rate of just over 18 percent. Maximum demand was projected to rise from 11.6 megawatts to 24.1 megawatts, over the period from 1972 (the first full year of use of Kajakai power after its projected completion in 1971) to 1981. After 1976, that demand would exceed the 16.4 megawatts of firm power available in the system at periods of low water flow for Kajakai. Another 16.5 MW generator was necessary to meet the demand. With the third unit in place, available power was expected to meet maximum demand through 1981.

The loan of $12 million was authorized in 1967, the loan agreement signed in 1968, and all conditions precedent met by September 1969. The design supervision contract was let in August 1969 to International Engineering Co. (IECO), which had done much prior work in Afghanistan. Six separate equipment contracts were signed at an aggregate price of $6.6 million, with delivery dates from September 1972 to November 1973. The equipment contracts were let in advance of the construction contract, to take account of the long lead times for delivery.

When bids for construction were received, all were well above the cost which had been projected, due to greater than expected escalation of prices and to allowance for risk involved in carrying out the project. Risks were judged to be high by the bidders, due to the remote construction site, and the political disturbances which had occurred in South Asia. For these reasons an amendment to the loan was proposed and approved to increase available foreign exchange funding by $3.0 million to a new total of $15.0 million; the amendment also covered the shifting of the foreign exchange funding for the transmission line from AID to the GOA. A loan amendment was signed in 1972. New benefit/cost projections showed the project as funded still to be the best available option for meeting future power demand throughout the Helmand and Arghandab Valley regions. Completion of the project was then projected for 1975, with full power available in 1976. Training of personnel to manage, operate and maintain the system was underway under the general supervision of the International Engineering Co., working with the ABM (Afghan Breshna Moassessa) or Afghan Electric Power Authority (the borrower) which had been established in 1966.

Environmental considerations as well as economic factors were favorable for the Kajakai project. Among the favorable environmental

factors which were re-affirmed in the 1972 loan paper were the following:

- o Elimination of air pollution which would be caused by diesel or thermal options;
- o Reservoir operation to favor irrigation was feasible while covering throughput needs for power;
- o Poles to be used to support the transmission lines were of a durable and aesthetic design; and
- o Installation of power facilities at Kajakai made use of power potential already provided for in the dam as constructed.

Amendments No. 2 and 3 were executed in 1974. Amendment No. 2 was for a funding increase of $7.5 million, in response to a special appeal by the GOA for AID to again finance all of the foreign exchange costs of the transmission facilities associated with Kajakai. Amendment No. 3 was for an additional $2 million necessitated by a higher negotiated price for the transmission facilities than had been projected. Although the GOA had agreed to cover any additional cost due to escalation, it was not able to act with sufficient speed to avoid expiration of the period for which the contractor's price remained binding. AID therefore authorized the further amendment. This brought total AID funding for the Kajakai power project to $24.5 million.

In FY77 an additional $1 million was committed under a new grant project to rehabilitate the distribution system in Kandahar. Approximately $100,000 was expanded by the close of FY77. All of the balance was projected to be spent by the end of FY78.

In considering the economics of the Kajakai project, it is enlightening to quote in full a paragraph from the loan paper for Amendment No. 3 as follows (dated Nov. 27, 1974):

> "The electric power sector is highly subsidized by the GOA. The rates for electricity are extremely low and have little relation to the cost of service. This is more fully described in the original CAP and Amendments I and II. For example, in CAP Amendment II, using a 10% interest rate, it was shown that a retail rate of 5.99 cents per KWH would need to be charged to break even. This would rise to about 6.5 cents per KWH due to the increased costs which this CAP Amendment III addresses. It is unlikely, however, that ARM can charge users more than an average 2 cent per KWH for some time to come. Thus, there is no doubt that electric power will continue to be government-subsidized for the foreseeable future."

This quotation serves as a reminder of the continuing difficulty of bringing the GOA to adopt a self-reliant stance. The continuing subsidy to the energy sector would be a drag on the country's ability

to be self-sufficient. The reluctance of the GOA to accept responsibility for charging economic prices for services rendered was a symptom of the difficulties faced in striving for development through the provision of assistance in the prevailing political circumstances where there was little or no leverage.

Available documentation does not permit the presentation of a satisfactory conclusion to the saga regarding Kajakai Electrification. It appears that the construction and installation of equipment was satisfactorily completed based on reported funds expected to remain unexpended at the end of FY78 (about 4 percent of total funds committed).

c. Lessons learned

Key conclusions and lessons which may be drawn from AID's experience in the energy sector are as follows:

- Electric power development involves far more than the construction and installation of physical facilities, especially in a country with so little prior experience with the institutional and technical issues inherent in such development. Therefore any plan to develop facilities should give equal weight and priority to developing human resources and institutional capacity along with examination of the technical feasibility and physical inputs required;

- As a result of vigorous efforts from 1962 to 1977, a pool of technically and managerially trained staff was developed for electricity operations in the Helmand-Arghandab region. Some of the necessary institutions were established. Nevertheless, political considerations strongly militated against achieving financial independence for the electricity authority, due to a continuing demand for subsidies to keep power costs unrealistically low, and the unwillingness to crack down on various forms of "pirating" to obtain illegal or unmetered power;

- Low salaries and wages, and the inadequacy of other personnel incentives were continuing deterrents to the maintenance of a strong staff;

- Developing major infrastructure facilities in a developing country with remote areas such as Afghanistan, and in the midst of a high potential for disruptive political developments, poses a high risk of cost escalations and delays. Given these conditions, a much longer time than might be expected is necessary for the completion of major infrastructure and equipment installations;

3. Rural works

a. Setting and objectives

The GOA set up a Rural Development Department (RDD) in the late fifties. It carried out a variety of programs on a modest scale through the sixties. Technical assistance was received from several sources over the years. The World Food Program (WFP) provided food which was used to pay wages to unskilled workers both for small works benefiting one village and for larger works benefiting several. At the time the U.S. first became directly involved in supporting the RDD in 1972, there were already advisors working in RDD from the UN, West Germany (volunteer engineers) and through the Indian bilateral program.

US support to RDD began on a very modest scale as a pilot activity. The purpose of the US assistance was to test whether the design of works could be standardized and improved and the quality of construction upgraded. In addition, the Fixed Amount Reimbursement (FAR) system was intended to act as an incentive to speed the design and construction process and expand RDD capacity. Technical assistance was contemplated in support of these objectives in the areas of engineering design/supervision, socioeconomic analysis, policies, planning and management. RDD programs were expected to be responsive to local needs and include due cooperation of local people for the construction of works which they requested through the provincial RD officer and the Governor of the Province.

Criteria applied to the selection of rural works by the RDD included:

- Strength of village enchusiasm and support;
- Willingness of villagers to contribute labor and resources;
- Geographical location;
- RDD capacity to undertake the project;
- Benefit incidence;
- Preference of the Governor of the Province among the projects proposed in his Province.

b. The US program

At the outset in 1972, the US agreed to work with the RDD on a pilot scale. The Mission concluded that the experience in relation to the key objectives of the program had been met in the pilot program. The decision was made to move into Phase I on a larger scale

in time for support to RDD operations in the 1975 construction season (summer).

The process by which rural works were selected involved initiative at the local level where a village or a group of villages would submit proposals to the district officer and thence to the RDD office at the province level. In the bast run provinces, at least, there was a review by the province level to eliminate duplicative or overlapping proposals. The provincial RDD would conduct a field review and select those proposals to be submitted to Kabul which appeared to offer the best returns, taking account of benefit incidence. The 30 or so best proposals, ideally, would be submitted in prioritized groupings. (Some provincial offices operated only as conduits passing on requests with little review.) Some smaller projects were funded and implemented with approval of the Governor at the province level. This applied particularly to road and culvert construction for execution in the winter season.

When all proposals were received, a process ensued by which Kabul selected six projects per province (usually after further consultation at the province level) for the conduct of field surveys. A further review based on the field surveys would result in the selection, with the approval of each Governor, of three projects per province as the annual program. Usually final approval by RDD Kabul was fairly automatic.

During Phase I implementation in 1975-76, RDD submitted designs to AID for projects to be considered for US funding. These were accompanied by socioeconomic survey reports purporting, at least, to show benefit incidence. Reportedly the quality of designs showed significant improvement during Phase I relative to previous experience. Opinions varied as to whether this was attributable to the FAR process and assistance rendered by AID. Some observers felt AID played a significant role while others believed that the UN and German advisors working closely with RDD were primarily responsible. Socioeconomic surveys were also a matter of some controversy--the skeptics believing that they were prepared simply to satisfy a bureaucratic/legislative requirement of AID and that RDD, while interested in the issue, felt it was competent to make judgments based on experience regarding benefit incidence.

During 1975-76 AID covered approximately 30 percent of RDD project cost under the FAR system. In each instance FAR funding covered 75 percent of a project's costs. RDD's budget was running at about $1,000,000 equivalent in local currency. Moreover, they were reportedly assured that the amount would be supplemented from the development budget as needed. AID's financing role was therefore recognized by all concerned to be supportive rather than primary. Evaluators viewing the scene in mid-1976 felt that AID technical assistance in the period up to mid-1975 had played a primary role in improving RDD performance but was on a downhill slide thereafter. The principal reasons were reduced staff levels and a change in the

perspective of the US personnel involved. Those who came later were viewed by the evaluators as less willing to spend their time in close working relations with their counterparts in the RDD. As a result, it was argued by the evaluators that they were no longer as effective.

In 1975-76 AID funded roads, bridges, intakes for irrigation systems, and water control structures. The evidence was inconclusive but in general it seemed likely that farmers tended to benefit reasonably equitably. There is a cultural norm among rural people requiring those who are better off to seek to support the well-being of their neighbors rather than taking maximum advantage of their power. For very small farmers, especially share croppers, however, this may not hold. Assuring in advance that results were equitable proved difficult both in terms of mobilizing the capacity to conduct reliable surveys and in terms of the costs involved in surveys, especially for smaller water control works.

The outputs schedule for the first two years of Phase I (1975-77) was as follows:

- 80 water control structures with water reaches averaging 375 acres per structure;
- 25 bridges of stone and concrete costing an average of $14,000;
- 100 kilometers of farm-to-market gravel roads improved to permit year-round use.

Through March 1976 the scheduled outputs and results achieved were as follows:

Structure	Target	Actual Achievement (completed)	In process/comment
Water control Structures	14	8	11 letters of intent issued. 7 design reviews complete. 4 FAR agreements signed.
Bridges	8	3	10 letters of intent issued. 4 FAR agreements signed.
Roads	15 km	None	3 road projects had letter of intent for a total of 33 km of improved roads.

The reasons for the lag in performance in Phase I (according to the 1976 evaluation) included:

- Inadequate Pilot Phase improvements in RDD planning and design for FAR system to function effectively;
- USAID engineering group understaffed;
- Afghan engineers hired by USAID not effective in review of designs presented by RDD;
- Training of RDD engineers to meet USAID standards under FAR had not taken place;
- RDD confusion on FAR projects;
- Ad hoc RDD procedures;
- Conflicts within USAID on project strategy and objectives.

Throughout the period of US support for rural works construction by RDD, total funding provided by AID was approximately $1.5 million.

c. Implementation issues

The introduction into the RDD of procedures as complex as those under FAR not surprisingly caused great difficulty. The RDD staff had evolved its own processes with UN and FRG support prior to USAID introduction of its funding with an accompanying set of rules and standards relating to design, cost, construction process and benefit incidence. In addition, AID insisted upon the RDD creating a planning unit in the belief that standards and schedules could only be adhered to if such a unit were in place. While RDD complied, it did not assign permanent staff to the unit and continued to allow planning functions to be carried out in other sections of RDD.

At one point early in Phase I, the head of the RDD (President) became sufficiently upset with USAID requirements that he threatened to terminate the relationship. Reportedly USAID reached a compromise on procedures which sufficiently placated RDD to allow activities to continue. Nevertheless, difficulties continued. Under FAR procedures, project design was to be completed and approved before work was undertaken. On occasion when USAID engineers went to the field to conduct surveys prior to approval, it would be discovered that work was already in progress. Naturally this led to conflict. The evaluators believed AID should be less rigid and be prepared to agree to fund such projects if work had not already proceeded too far for reasonable assurance of adherence to design in the opinion of AID engineers.

The question of payment work of unskilled village workers in support of projects was a cause of considerable concern. When AID began to assist the RDD, it was intended that a policy be developed on

this issue. The RDD had been in the habit of paying such workers even on small projects from which all residents of a particular village would benefit. They were able to do this without cost to their budget by using World Food Program (WFP) food. No conditions were attached to the WFP food program making this improper. The effect of the practice would be to discourage village residents from providing their labor on a voluntary basis. AID felt such voluntary work is in the best long term interest of Afghanistan's development. The RDD engineers, however, favored payment even on small projects as it encouraged regular participation. They also preferred to pay such workers on projects funded under FAR procedures by AID. More than one year into Phase I operations, no policy had yet been agreed.

Socioeconomic surveys to establish benefit incidence of FAR financed projects was a requirement aimed at ensuring that the poor would be primary beneficiaries and not just the local elite. The requirement was nominally being met. While the RDD set up a planning unit which was to be responsible for such surveys, some members of the AID staff believed that the work being done was not adequate to establish the incidence of benefits. The evaluators believed (as of 1976) that RDD had capacity to carry out meaningful surveys but recommended that such survey work be part of a comprehensive management information system except in the case of the smallest projects of direct benefit to one village. In the latter case, a one-day survey should suffice if carried out before design work was undertaken and if it provided satisfactory evidence of good benefit incidence on behalf of the poor majority.

The Rural Works Project, as originally designed, contemplated an improvement in overall capacity of RDD to design and construct rural works to a higher standard. During the first year of work the only projects for which design reviews had been made by USAID engineers were USAID-funded projects under the FAR system. No attempt had been made to examine design performance on other (non AID-funded) projects. The failure to examine other designs reflected the shortage of USAID engineering staff. Without such an examination, the case for concluding that RDD design capacity had improved across the board could not be made.

Minor Irrigation Systems (MIS) were part of the program contemplated for funding under the Rural Works program. These are larger than projects with single intakes and would cost about $50,000. The RDD planned to improve 156 such systems over a five year period. USAID was asked to assist with the execution of 30 MIS projects. The 1976 evaluation concluded that RDD would require further technical assistance to carry out meaningful socioeconomic surveys of projects on this scale. At that time only preliminary planning was under way on MIS projects.

The Rural Works Project also contemplated eventual support of an Integrated Rural Development program. As of 1976 the RDD was beginning to work on one such activity. Technical assistance was being provided

through the Indian bilateral program and plans called for working in the manner of the block development system used in India. Evaluators concluded this would be a most unfortunate model because it calls for RDD to provide services in the selected IRD areas without the participation of line Ministries such as health, education and agriculture. The RDD did not have the technical capacity for such an undertaking according to the evaluators judgment. Even for IRD organized differently, the evaluation concluded that the RDD, despite progress made in its technical capacity and institutional development, would need intensive technical assistance.

Available information does not provide detailed insight into the further progress of the Rural Works program after 1976. According to the Mission's view set forth in September 1978, however, the RDD had gained further capacity and was functioning well. Despite the change of government in April 1978, RDD was continuing to perform well and was receptive to continuing and even expanded US technical assistance. Discussion of possible US support for an area development program was under way. The Mission believed, however, that if such an effort were to be undertaken in 1978, it should not necessarily be initiated within the framework of RDD. As the matter was considered at that time, it could not be separated from the issue of its political significance in the context of overall Afghan--US relations. At that time there were indications that the US might not be welcome in a project involving permanent resident technicians in the north of the country so that an area development activity in that region seemed unlikely. On the other hand the possibility existed that undertaking an area development program could result in US activities being largely or wholly restricted to such an area. In September 1978, the possibilities for fairly broad discussion of future program options seemed fairly open. As matters developed, however, the situation deteriorated in the ensuing months and within a year the Mission had closed.

d. Impact and sustainability

The Rural Works program carried out with the RDD was fully operative over a period of somewhat over four years (1974-78). It had a slow start in Phase I (1975-77). Its impact was variously believed, by members of the Mission and outside evaluations, to have been minimal to very significant. According to the optimists' view, progress was made on a number of key fronts during Phase I including:

- Improved institutional structure and organizational efficiency;
- Increased capacity for design and standardization of performance;
- Better capacity to plan and assess the equity and benefit incidence of projects;
- Achievement of finished projects at reasonable cost.

Even the optimists conceded, however, that RDD still needed:

- A training program to develop a cadre of technician level personnel (high school grads) who could carry a greater share of the RDD work and improve the capacity of its professionals to operate more effectively;

- Professional staff development and RDD's improved performance was at least partially due to technical assistance input from sources other than USAID (notably the UN and FRG volunteers);

- AID's FAR system and the shortage of USAID engineering staff had contributed to the shortfall in outputs relative to targets established for the project at the outset;

- AID had failed to work out a useful policy on payment for local unskilled labor.

The more pessimistic view held that:

- AID input to improvements in the RDD performance was marginal compared to other donors who had been on the scene before AID and operated more closely with RDD staff;

- The RDD planning capacity was entirely rudimentary and not institutionalized;

- The FAR system had not contributed to RDD's adoption of better design practices or standardized performance.

Over the succeeding two years, available evidence suggests that the RDD was more satisfied with AID's input and were eager to have continuing US funding and technical assistance. For its part, AID was sufficiently satisfied with RDD performance to be prepared to continue support for rural works. On the other hand, when it contemplated involvement in Integrated Rural Development, the Mission was disinclined to work exclusively or even primarily through RDD.

e. Lessons learned

From the experience of the USAID in the area of rural works, the following lessons can be inferred although available documentation does not provide as full or recent insight as would be desirable:

- A cadre of professional staff with capacity to manage and implement a respectable level of rural works was developed although, as in most GOA organizations, too much of the burden fell on a few of the most competent and dedicated staff;

- Most rural works projects undertaken by RDD were the result of local community initiative and requests for assistance which were matched by a willingness of resident people to provide voluntary labor for projects with direct local benefits;

- The provision of pay in kind (food from the WFP) or in cash was antithetical to Afghanistan's best interest for rural development for projects with direct benefit to a local community. Pay for work was appropriate, on the other hand, for larger works with broader geographic benefit spread;

- Socioeconomic analysis to identify the benefit incidence of rural works was not a well-developed skill within the RDD. On the other hand the RDD was concerned with benefits to the poor and believed it was capable of assessing the impacts on a more rudimentary information base;

- The FAR system did not provide as much leverage to improve and standardize performance as had been believed. In fact it was more dependent on the provision of intensive technical assistance than AID had contemplated or provided staff to deliver;

- Unless the participating agency of the host government had a strong base of technical personnel who understood the FAR system and were able to deliver plans and designs to meet FAR requirements, construction performance was slowed down or instituted.

- The main positive benefit of the FAR system was in ensuring the ultimate (possibly delayed) delivery of completed works capable of performing as intended. This is a considerable benefit but it is personnel intensive in the early stages of the development of such capacity;

- With an overall rate of 70--75 small projects completed per year, the impact of rural works carried out by RDD with US and other external support was modest. US funding covered only 30 percent of this activity. Its impact on overall rural development was still more modest.

C. Private Enterprise Development

1. Setting

In the early days of US assistance to Afghanistan the Government held strongly statist views. Government leaders and officials were hostile to, or at best skeptical, of private investment. Two laws had been passed with the ostensible purpose of encouraging investment, namely:

- Code for Encouragement of Industries in Afghanistan, 1949, administered by the Ministry of Mines and Industry;

- Law Encouraging the Investment of Private Foreign Capital in Afghanistan, 1954 and 1958, administered by the Ministry of Commerce.

These laws in themselves were not detrimental to investment; the main problems were that they were administered by two separate ministries in a hostile manner. The prospective investor was subjected to a "negotiation" process in which the GOA sought to drive a hard bargain. Responsible officials were certain there was a "trick" under any proposal. There was no security for investors. Credit institutions did not exist to help finance investments. Responsibility was divided among ministries and no mutual understanding developed between the GOA and the investor. The result was that very few investors came forward and the country remained an "industrial desert." Up to 1963, AID had undertaken very few initiatives to foster private activity. Exceptions include support to private automotive maintenance services in Kabul, and the implementation of a survey for a possible industrial park in Kandahar.

When the Daoud government left power in 1963, AID was encouraged to make a new start toward private industrial expansion as a means of mobilizing new resources and creating a potential for employment and export growth. The first major action attempted was to obtain a contractor to carry out feasibility analyses of eight promising areas for industrial development. Some included export possibilities. When the studies were completed attempts were to be made to promote them as areas for private investment. In the process it became painfully clear that the real issue was the climate of hostility toward private investment. As a result even a vigorous effort at promotion of opportunities with genuine potential simply failed.

With encouragement from USAID, the contractor prepared a study entitled "The Investment Climate of Afghanistan" which described the continuing hostility prevailing and the impossibility of promoting private investment until this situation changed. The Minister of Commerce supported the conclusions of the study, and worked closely with the AID contractor and the legal adviser of the Asia Foundation to draft a law for the promotion of foreign and domestic private investment. This was to prove to be a key action in changing the investment climate. It had become possible because of the change in the political leadership, but its passage was not assured as it was being drafted in 1965-66. Many officials and several key ministers remained opposed.

2. Legal policy and institutional framework

The Foreign and Domestic Private Investment Law was approved by the Cabinet, signed into law by the King (the Parliament not being

in session) and published on February 22, 1967. This was where the battle began, not where it ended, but it was a key step. Opposition to encouraging investment remained strong. Determined and skillful support by the Minister and officials in the Ministry of Commerce were essential to achieving progress. As investment applications began to come before the newly created interministerial Investment Committee approvals were granted. Usually, majority votes were made unanimous in accordance with Afghan tradition. An Investment Committee Secretariat was set up in the Ministry of Commerce to process applications, assist investors, register new companies and issue trade licenses. Over time the Secretariat was also given power to sign customs releases and grant investor visas. In effect then, the Secretariat became a one-stop center for investor assistance in using the new law's liberalized provisions for tax, customs and other investment-encouragement concessions.

The "one-stop" concept and an open, friendly and supportive reception given to all prospective investors were used to promote investor interest. Investors began to see the Secretariat as a place where they could get answers and resolve problems. There was an improved perception that the Investment Law was the policy of the Government and was there to stay. There was an improvement over the earlier situation of divided responsibility.

As experience confirmed the relative effectiveness of the program, applications came from foreign and Afghan investors of all ethnic/tribal backgrounds--even Hazaras. A privately funded Investment Advisory Center was set up with membership drawn from the business community. AID supported the Center with technical assistance. The contractor was also an active participant in supporting the Ministry of Commerce throughout this process. That assistance was essential to effecting a change in attitude, policies and procedures.

Although the series of activities described above greatly helped to increase confidence among investors, the private community was made up of realists. They were not unaware of the latent opposition within the GOA. Investment occurred but entrepreneurs hedged their bets and remained wary.

During the first phase of the AID program, and prior to passage of the private investment law, no progress was made in encouraging investment. Following its passage in the second phase (1967-70) the following favorable developments occurred:

- Investment applications submitted - 217;
- Applications approved - 133 (of which those by foreign investors totalled 22 and came from Pakistan, Italy, India, Germany, UK, US, Switzerland, Canada);
- Factories built and in operation - 51;

- New jobs created/projected -- skilled 1,684, non-skilled 17,010; total 18,694;

- Total financial resources required (all currencies), $45.6 million (by fifth year of projects); and

- Potential annual sales -- $89.4 million (of which projected exports would be $26.6 million in fifth year).

The projects initiated were in a wide range of fields from agro-industry to accounting, and from battery and metal manufacturing to textiles, tobacco and furniture. This response was gratifying but fell short of bringing industry into real prominence in the economy.

During the late sixties the establishment of the Afghan Karakul Institute constituted an innovative and successful undertaking. It represented a unique effort to revive an industry of great importance to Afghanistan and to the herders who raised Karakul sheep. These animals were priced for their popular fur also known as Persian lamb, or natural broadtail when grey in color. The industry had been in decline from 1950 to 1965 due to increasing competition from abroad and poor production, processing, sorting, grading and marketing practices in Afghanistan. At the request of the GOA, AID provided technical assistance for the formation of the Institute as a non-profit, privately financed, self help program. Because the producers readily grasped the potential for increased prices for Karakul pelts sold on the London market, they gave wholehearted support and participation. By using modern processing, sorting, cleaning and grading and by expediting Karakul shipments to the London market, the Institute became the leader of the industry. Its influence and advice resulted in shifting production predominantly into the high value natural broadtail pelts. The total value of exports nearly doubled between 1968-69 and 1971-72, reaching $18 million in the latter period. As a result, herders' incomes also rose sharply. The Institute became completely self-supporting. The total cost of the technical assistance to the Institute was $180,000 between 1966 and 1970.

In a third phase of the program (1971-74), with a new contractor in place, a further expansion in industrial investment occurred. The number of factories in operation increased from 51 in 1970 to 100 in 1974. Of these establishments, 82 were in Kabul and the remainder in various provincial cities. Twenty-eight of the establishments were export oriented and eight were partially so. Foreign investors from nine different countries supplied 25 percent of the capital invested. Agro-processing played an increasing role with 29 firms engaged in such activities as leather and tanning (10), raisin processing (9), animal casings (2), honey (2), nut processing (2), etc. The contractor continued support for the policy functions of the Investment Committee. Support provided to the private Industrial Advisory Committee included development of its capacity to conduct feasibility analyses and project identification. Progress was made in training Afghan staff in a wide variety of functions.

In 1972 a new investment law was passed which among other things established an Investors Association. In the following year the establishment of a much needed Industrial Development Bank was authorized. In general the investment climate remained favorable in 1971-73 although the Investment Committee became increasingly conservative in its review of investment proposals. Other donors such as the UN and the Commonwealth Secretariat also provided support to the private investment process in this period. Collaboration among the donor groups was good.

Assistance provided in the early 1970s for the creation of the Afghan Fertilizer Company as a private enterprise to import and export the distribution of fertilizer is covered below in section D.2, Agriculture Sector. It was a significant success in private enterprise development and played a major role in raising agricultural production in the country.

After the coup in 1973 which brought about the return of Daoud as president of the Afghan Republic, the investment environment became progressively worse. Political turmoil combined with the reemergence of statist policies to sour the investment climate. Investment application review was transferred to the Ministry of Planning which had always been hostile to private investment. By 1974 the flow of investment applications was almost nil. USAID technical assistance was terminated in mid-1974 when it became apparent that the climate for private investment had deteriorated to the point where progress was no longer feasible.

3. Impact and sustainability

US technical assistance was a very positive force in stimulating domestic and foreign private investment in Afghanistan during the ten years (1963-73) between the first and second Daoud regimes. At the same time it has to be said that government policy must be perceived as genuinely receptive, as the private community felt secure enough to make financial commitments. The experience during that period demonstrates a remarkable degree of interest in the Afghan community in private entrepreneurship and industrial investment. This is demonstrated in a concrete way by the 100 industrial establishments created, and the substantial investments made in the seven-year period between passage of the 1967 investment law and the withdrawal of the US technical assistance team in 1974. By way of contrast, many Afghan officials had expressed the view when active investment promotion was first undertaken that no investors would be forthcoming. What many of these officials actually meant was that they intended to see that there was no investment. The fact that investment activity went forward with some success and a measurable increase in private industrial activity is no small phenomenon in a country where there had been no private investment in the past. The achievement of this success was attributable to a combination of several factors:

- A concrete legal base that created significant incentives;
- An open declaration of policy in favor of private investment;
- A general political climate which gave investors a sense that the policy was stable;
- An organizational structure which brought all of the Ministries with roles to play into line in support of the pro-investment policy (notably Commerce, Mines and Industry, Finance and Planning)
- Less opportunity to sabotage private investment than had been the case in the past;
- A "friendly process" for the submission, review and approval of investment applications which was convenient and supportive to prospective entrepreneurs in preparing feasibility analyses and structuring a business for success;
- A strongly committed and politically influential Minister supported by capable and interested officials to implement the law and the pro-investment policy; and
- Experienced technical assistance advisors, aware of the needs of investors as well as the organizational, procedural and attitudinal factors in the investment promotion/processing institution, and able to support the development of good practices.

During the period 1967-73 all of these things came together. One further favorable development also occurred to provide financing for entrepreneurs, namely the creation of the Industrial Development Bank of Afghanistan (IDBA). While it came too late to be a significant support during the "good days" it was a most useful element in later years when the climate was much less favorable. The IDBA was able to contribute some support, despite the anti-private investment climate which increasingly emerged under the second Daoud regime, and the accompanying political strife and uncertainty.

The fragile nature of legal, policy and organizational structures to favor private investment in a country with a long history of cool to hostile treatment of entrepreneurs is obvious. The progress made in creating capacity to encourage investors was not sustainable. The political climate is the paramount factor. If it is hostile, all else is swept away. That was the fate of the Afghan private investment promotion program.

4. Lessons learned

From the technical assistance experience in Afghanistan the following conclusions and lessons can be drawn:

- Without a sense of investor confidence in the security of investments based on a favorable investment climate, even profitable opportunities are of little interest to prospective investor/entrepreneurs;

- Despite the very limited experience of Afghan entrepreneurs in risk-taking and private industrial investment, there was a reservoir of persons interested and able to mobilize resources to initiate business ventures, even in the absence of financial institutions to provide complementary debt capital;

- Prospective investors can be encouraged and investment activity expedited by creating a set of legally- sanctioned incentives and clear policies favorable to private investment. A political environment which gives promise of stability in the operation of these policies reenforces the incentives;

- Within a generally favorable investment climate, inexperienced entrepreneurs still need encouragement and technical help to formulate good business proposals, to obtain the approvals required to trigger the operation of tax and other incentive arrangements, and to launch their enterprises;

- A wide range of people from the varied ethnic, tribal and geographic settings in Afghanistan have entrepreneurial interests and capacities, and demonstrated capacity to mobilize capital;

- As in the Afghan Karakul Institute, a not-for-profit, private institution whose members are from diverse rural settings can be viable and self-supporting when focused on an objective in which the membership has a strong common interest;

- Industrial processing of Afghan agricultural products has significant potential for increasing value added, employment and exports; and

- Modest amounts of technical assistance can have significant economic development impact when linked to a potential resource which is not greatly dependent on the weak administrative capacities of the government bureaucracy.

D. The Agricultural Sector and Area Development

1. Helmand Valley and rural development

a. Characteristics and setting

The Helmand Valley (HV) project represents the singularly largest AID effort in Afghanistan. Over the years it has attracted the most attention and controversy. The Helmand Valley project has been the subject of a library full of assessments, evaluations and audits. Conclusions drawn represented a range of views which rated the project from an unqualified success to a colossal failure. A retrospective view from atop the pile of available reference material clearly establishes there were many positive aspects which resulted in a significant improvement in quality of life for Valley residents.

The Government of Afghanistan's decision in 1946 to use its meager foreign exchange reserves to improve the irrigation infrastructure in the Helmand-Arghandab drainage area cannot be faulted. Runoff available from the Helmand and Arghandab Rivers represents 40 percent of the potential source of irrigation water in the country--a country in which 75-80% of food consumed is produced through irrigated agriculture. Mild climate throughout the area provides an extended growing season which allows for double and triple cropping.

USAID, through its predecessor agencies, became involved in the Helmand Valley soon after the 1952 opening of the Mission in Kabul. With the exception of an 18-month hiatus in the early 1970s, USAID remained involved until the Mission closed in 1979.

b. Early programs in the Helmand Valley

Following is a chronology of twentieth century events with significant impact on the Helmand Valley development and USAID activities in the area.

(1) 1910--Beginning of the 20th century resurrection

In 1910, the Governor of Kandahar, undoubtedly inspired by historical references to the Helmand Valley as the "bread basket" of Central Asia, began to resurrect the ancient canal system, mostly utilizing hand labor.

In halting steps, and with many setbacks, the process initiated in 1910 has continued through this century. In a country where sustenance is dependent on irrigated agriculture, it is essential that the productive potential of this resource be maximized.

(2) 1930's--The first expatriate help

In the early 1930's, German engineers were hired to repair the original hand dug canals and build a siphon near the intake of the Saraj Canal. In 1936, the Japanese were contracted to extend the 200 year old Deh Adam Kahn Canal (the precursor of the Baghra Canal).

Japanese technicians prepared plans for realigning and enlarging the Canal but limited the area to be irrigated to the flood plain below Girishk. As of that date work accomplished by the Japanese was by far the most sophisticated of the century.

With the beginning of World War II (WWII) the Japanese departed with only approximately 15 kilometers of the Canal completed.

(3) 1940-1946--World War II

Work on the Canal continued during WWII under the supervision of European trained Afghan engineers. At that time, a decision was made to change the route of the Canal, and locate it on higher ground above the flood plain. Relocation necessitated cutting and blasting through hard conglomerate and filling low areas with soil excessively high in gypsum. The change had a lasting impact on a large portion of the total system and established parameters for future development. It also led to engineering design compromises as construction continued.

There were two problems: 1) The highly permeable gypsum ladened fill caused excessive seepage from the Canal. 2) In order to dig through the conglomerate, heavy equipment was required. The Japanese had planned to run the Canal just off the escarpment on the flood plane, which would have avoided both of the above problems.

(4) 1946--The first Morrison-Knudsen contract - $17 million

Using foreign exchange reserves accumulated from lucrative WWII trade, the GOA negotiated a $17 million contract with Morrison-Knudsen Afghanistan (MKA). Limited in scope, this first contract called for:

-- Improvement of the roads from Chaman, Pakistan to Kandahar, and Kandahar to Girishk, to facilitate movement of heavy equipment and supplies through Pakistan to the HV construction area.

-- Construction of the Boghra Canal and Helmand River diversion dams.

-- Construction of the Shamalan spur of the Boghra Canal.

This contract set in motion the current development phase of the Helmand-Arghandab Rivers. Of equal importance, this was the first significant involvement of the United States in Afghanistan. It was the beginning of technology transfer and cultural exchange that opened Afghanistan to the western world.

During the first contract, work proceeded on schedule in spite of problems such as the transportion of heavy equipment and supplies half way around the world to Chaman, Pakistan where the border was closed because of the Afghan/Pakistan dispute over "Pushtunistan". Prior to beginning work on the irrigation system, MKA concentrated on constructing the Chaman-Kandahar-Girishk roads and building a forward operations camp above Girishk.

By 1948, enlargement and extension of the Boghra Canal was underway. This canal brought water to areas not previously farmed or irrigated. As the canal was pushed forward through the Nad-i-Ali area, it became more apparent to both MKA and the GOA that soils of the area were composed of shallow, alluvial material over permeable gravel which was underlain by an almost impermeable conglomerate. MKA later classified 84% of these soils as Class IV, which according to MKA's classification standards should be limited to irrigated production of trees, hay or pasture. It was also apparent that pervasive drainage problems would need to be addressed. MKA pushed for a detailed soil and water survey of the identified development areas. The GOA remained reluctant, contending that the survey would be too costly and not really required.

A contractor-client relationship existed between MKA and the GOA. While some GOA decisions were based on technical advice given by MKA, it was apparent that in other instances GOA decisions were guided by political expediency rather than technical merit. It was also apparent that MKA management overruled field recommendations. Today it is not possible to lay blame at the doorstep of either party for the decision to continue with the development of the west bank terrace of the Helmand River. What is obvious is that an in-depth soil inventory of the terrace area would have provided conclusive evidence that development could not be feasible economically.

The Activities to that point were confined to diversion and movement of water from natural flows in the Helmand River to irrigable areas on the valley floor. However, the increased intake into upper valley systems resulted in much less water availability to downstream users during summer. To store winter runoff, MKA recommended the construction of a dam at Kajakai on the Helmand River. It was reported that MKA also insisted on a complete soil and water survey to determine land quality and area to be irrigated from such a dam.

The GOA wanted desperately to continue the project, but their post-WWII reserves had been depleted. MKA assisted the GOA in developing a comprehensive irrigation scheme. The scheme involved building dams on both the Helmand and Arghandab Rivers, as well as

enlargement of existing canals, building new canals, and constructing the required drainage system. In 1948 MKA completed a survey of the proposed dam sites. MKA's proposal called for integrated valley development based on comprehensive planning for infrastructure, land development, and institutional growth. MKA was to be the principal functionary in implementing the plan.

For financing, MKA assisted the GOA in presenting the proposal to the Export-Import (Ex-Im) Bank in the US The Ex-Im Bank determined that the package was excessive and agreed to finance only the proposal's irrigation infrastructure portion. In November 1949, the Ex-Im Bank approved a $21 million loan, but deleted funding for the critical soil and water survey.

(5) 1950-1952--The first Export-Import Bank loan -$21 Million

With the Ex-Im Bank loan secured, MKA under their second contract began construction of the $7 million Arghandab Dam in January 1950: A multipurpose dam controlling a 400,000 acre-feet reservoir was completed in 1952 on the Arghandab River, about 24 miles north of Kandahar. The dam is a rolled earth structure 160 feet high by 1760 feet long. Provisions were made for future installations of a powerhouse, which as originally planned was to consist of two 3200 kilowatt vertical shaft hydroelectric units. The $13.5 million Kajakai Dam was started in May 1950. The dam is located--approximately 60 miles from Kandahar and almost 50 miles from Girishk--in the foothills of the Hindu-Kush mountains. Situated in a narrow, steep walled gorge of stepped dolomite limestone, the dam is a rock-filled structure with an earth-filled core; has a maximum height of 320 feet and is 885 feet long and 33 feet wide at the top, with an ungated spillway and intake and outlet works for controlling water release. The dam impounds an initial reservoir of 1,495 thousand acre-feet of gross storage. Both dams were completed by June of 1952. The balance of the first Ex-Im Bank loan was consumed mostly by lining and rehabilitation work on the canals constructed under the first MKA contract. The GOA and settlers in the newly developed land were to construct feeder and farm ditches to farm plots. Farmers' fields were also to be leveled by the GOA. The GOA found that it could not undertake this task, and in 1951 asked MKA to assume the responsibility for completing the job on 6500 acres in Nad-i-Ali.

In the Arghandab River Valley, a diversion dam was constructed to divert water into the South Arghandab Canal. A new canal, which was to be almost 17 kilometers long upon completion, would bring water to feed five of the largest traditional canals in the central Arghandab area as well as to the new proposed Tarnak canal. The Tarnak cannal would transport water for 26 kilometers from the bifurcation to a point across the Tarnak River in the northeast corner of the Tarnak area (see map). During this period of the second loan the first unit of the north branch Tarnak irrigation canal was constructed. Work in the Arghandab River Valley was similarly began before adequate soil and

engineering surveys were completed; and the ramifications of this insufficient planning were to arise only by the mid-1960s. Beginning in 1951, the GOA started to settle nomads into the newly prepared areas in Nad-i-Ali. Each family was to be provided with 15 acres of land, a ready-built house, 2000 afghans in cash, and enough wheat seed to plant the first year's crop. Not intended as a gift, money was to be paid back without interest, in 17 equal payments over a 20 year period. A three year grace period was allowed. Settlers were attracted in droves. Soon there were encampments of applicants waiting to be assigned their land. The Administration procedures were cumbersome, and approximately 15,000 applications were backed up.

The Ex-Im Bank, anxious for the irrigation development to generate a return, prompted the GOA to set up an autonomous authority within the valley. The Helmand Valley Authority (HVA), chartered by the GOA in 1953, began a life of its own. Initially, the principal function was to be settlement of nomads on newly developed land.

Creation of the HVA did accelerate the settlement process and soon 1300 families moved into the villages of Nad-i-Ali. At least 90% were nomads who had no previous farming experience. An effort was made to provide some technical assistance to the unskilled farmers, but with little impact. Within three years water logging and salt accumulation problems were severe. Many of the early settlers abandoned their farms. Of those who remained many were barely able to subsist, as each year the problems multiplied.

The need to concentrate on drainage was increasingly apparent. Presence of the impermeable substrata in the newly developed terrace area was known but underestimated. Necessity to line the canals had not been anticipated. The above problems coupled with a free, unlimited supply of irrigation water in the hands of inexperienced farmers, continued to exacerbate the problem. Much of the first Ex-Im loan was consumed in an attempt to reduce impact of the problems.

Notwithstanding the above problems, the canal was pushed on along the river terrace to the next development area at Marja. Concurrently the Shamalan spur to the flood plain along the west bank of the Helmand was completed.

Soils of the west Marja tract were similar to those in most of Nad-i-Ali, and therefore, a decision was made not to develop that area. The east Marja tract was developed and settled even though 42% of the soil were classified by MKA as Class IV--not suitable for intensive, irrigated farming. It was only a matter of time until problems similar to those of Nad-i-Ali began to force out-migration.

Shamalan presented a different set of problems. The majority of this area was owned by large landowners, and was irrigated using natural flow from the Helmand River. Settlers were moved into these already settled areas on land that could not be irrigated from the river. The large and powerful landowners resented the new settlers and

many settlers were forced to move from the land. Consequently, less then ten percent of the land in Shamalan was occupied by settlers.

(6) 1952-1953--USAID Mission to Afghanistan opens

In 1952 the USAID Mission was opened in Kabul. The process of project development began. The Helmand Valley was a high priority and in dire need of assistance. Early in 1953 two agriculture extension advisors were assigned to the Valley. Development of the Helmand had been considered an American Project because of MKA and the Ex-Im Bank involvement. It was with this initial limited involvement that successes and failures in the Valley were indelibly linked to the US Government.

USAID involvement was accelerated late in 1953 when a USAID/ Afghanistan assistant director was posted to the Helmand Valley along with a cadre of US technicians. One of the director's first tasks was to chair a committee composed of representatives of USAID, HAV, Ex-Im Bank, and MKA, with some involvement of UN/FAO as well as the US Embassy.

This committee produced an exceptionally optimistic report which projected unrealistic economic returns for the Valley. The 87-page report described the required remedial work on existing structures in some detail, and proposed further expansion of the project. The report entitled "The Helmand Valley Development Program" was used by the GOA to support a $36 million loan request to the Ex-Im Bank. The Bank, although a participant in developing the program, agreed to finance only half of the projects proposed. In early July 1953 the Bank approved an $18.5 million loan.

(7) 1953-1955--Second Ex-Im Bank loan $ 18.5 million and third MKA contract

With funds from the second Ex-Im Bank loan, the GOA entered into a third contract with MKA. The contract called for construction of the Darweshan diversion dam, canal and drainage system, the Arghandab Canal to connect with the largest operating traditional canal system in the Arghandab area, as well as the first portion of the Tarnak Canal. Infrastructure facilities, inter project roads, two hydroelectric power plants at Girishk, and electrical distribution lines to Gan-i-Angirs, Nad-i-Ali, Marja, and Lashkar Gar were also completed. As a provision of this loan the Afghan Construction Unit (ACU) was set up. MKA was to "Afghanize" construction aspects of the project by training their Afghan counterparts in construction engineering, equipment maintenance, equipment operation, administration and operation, and maintenance of the system. The purpose of this exercise was to develop an organization capable of performing the construction functions of MKA when the MKA contract terminated. USAID provided heavy equipment and technical training specialists to

accelerate the process of training the ACU into a creditable and effective construction unit.

(8) 1953-1954--USAID's involvement in the valley accelerates

In the Afghans' view, the Helmand Valley was an "American" project, and US credibility was at stake. USAID took on the Helmand Valley in a defensive posture, acknowledging that it was an American project and that its problems had to be "fixed". The "Helmand Valley Development Program," while not a fully articulated document, reflected the USAID state-of-the-art approach to at least begin the process.

Involvement of USAID technical staff was piecemeal. Critical positions were established, but recruitment in the US was slow. Activities were begun with little measurable impact, as many staff positions were vacant. Although USAID recommended policy changes, policy decision remained with the GOA and HVA. There was little clear cut comprehensive planning nor meeting of minds between USAID and the GOA on goals and objectives. Absence of critical planning did not spur the GOA to direct their efforts toward planning, but set a pattern of reacting to problems rather then anticipating them.

The GOA/HVA pushed for enlarging the system by building diversion dams and more main canals. The settlement process continued even though earlier settlers were abandoning their land. HVA acknowledged that drainage was a problem. Main surface drains or wasteways were put in place, but subsurface drainage remained an activity to be put off until the canal system was completed. The "American" project was a long way from being fixed.

(9) 1956--USAID commissioned Tudor Engineering Company to investigate and report on the development of the Helmand Valley

The Tudor Report was the first codification of available information on the status of Helmand Valley development. The report focused on strengths and weaknesses of the development, but was generally positive. It envisioned a continuing role for MKA and an increased role for USAID.

A phased approach was recommended. Phase I was to involve completion of construction underway. Phase II delineated priorities to be assigned to various provisions of the project, established a proposed construction schedule, and identified financing required over the next five years.

Progress to date was analyzed by the report. It underlined the need to deal with the now apparent problems created by the narrowly-focused, construction-intensive development scheme.

The Tudor report was critical of early assumptions that had been made in projecting economic returns from the project. It concluded that production estimates were generated by assuming nomads having no farming experience but settled on irrigated farms, would produce at a rate comparable to experienced farmers. This conclusion, however, did not preclude Tudor economists from projecting an exceptionally optimistic benefit stream.

The report urged USAID to provide more technical assistance by mounting an Integrated Rural Development program which should include an expanded extension program, education, public health, farm credit, public administration, industrial expansion, and cottage industry.

Costs of the project through June 6, 1956 were reported to be $83 million, including costs of hydroelectric power. Of this amount $55 million was paid to MKA. Capital costs to complete both construction phases as recommended were $17 million for Phase I and $17 million for Phase II. It is interesting to note that construction of farm drains, while specified as urgent, was not included as a cost. The report recommended the drains be hand-dug by farm owners.

Available records do not reflect how this report was received by USAID, but the content of the USAID Helmand Valley portfolio during the late 50s reflects many "Tudor Report" recommendations.

(10) 1959--End of the MKA Era--the beginning of the Bureau of Reclamation/ACU era

By 1959, Ex-Im Bank loan funds were exhausted. Approximately 68% of planned work was completed. HVA was disenchanted with MKA whose third contract had expired. A new contract was not forthcoming. With the departure of MKA from the Valley, and in the absence of additional Ex-Im Bank funding, a new era in the history of Helmand Valley development began. Signing of a project agreement between USAID and the GOA, committing the US to higher levels of both technical and capital assistance, further escalated US Government responsibility in the Valley.

In 1960, under terms of this new project agreement, a 13-man Bureau of Reclamation (BuRec) team began to arrive in Afghanistan.

The Afghan Construction Unit (ACU), as understudy and successor to MKA, was struggling. HVA was determined to continue to expand the system. BuRec worked with both providing engineering design to HVA, and supporting the ACU in construction of irrigation drainage works, as well as operations and maintenance. HVA continued to settle new villagers in Marja and Shamalan. BuRec's role expanded into planning. As a first step, the Bureau recommended an economic analysis of the Marja area before further development took place. The result was an attempt to develop some baseline data; i.e., "The Economic Analysis of Marja Farms."

Major impact of the study was to once more place in the limelight the principal underlying problem in the Helmand and Arghandab Valleys--water logging and salt accumulation, particularly in the Nad-i-Ali area, but also in much of Marja, as well as increasingly in the Central Arghandab.

The study documented that overall production had increased on Marja farms. Although many farm yields were decreasing--more settlers were farming new land.

This report increased the appetite for more and better farm economic data and analysis. In 1963 BuRec began a more in-depth survey. In the meantime, the impact of USAID technical assistance in agriculture was beginning to be realized. Afghan counterparts were returning from long-term training in the US. Rudimentary research stations were developing into acceptable research facilities and were producing results. Extension training was paying off, as an expanding cadre of extension agents with at least some exposure to appropriate farming practices, were visiting farmers.

Nonetheless, while there were signs of progress, there were pervasive indicators of poor planning. More importantly, there was a lack of conviction and drive to implement needed and agreed upon actions. The American Project required more fixing.

(11) 1965--BuRec's first farm economic survey of the Helmand Valley

The first economic analysis to treat farm economics and production in a creditable way was the BuRec's 1965 Economics of Agricultural Production in the Helmand Valley. The survey clearly documented significant increases in many farmers' yields and total agriculture production.

It also documented a further increase in water logging and saltation in the Nad-i-Ali and Marja areas, as well as problems of equitable water distribution, which reduced many farmers' yields to subsistence levels or below.

This report provided the baseline data which was used in Farm Economy Surveys conducted in 1970, 1975, and 1978.

(12) 1965--Helmand Valley Authority is expanded to include the Arghandab Irrigation Complex

HVA was expanded to include the Arghandab area. It became the Helmand Arghandab Valley Authority (HAVA). Concurrently, its responsibilities were extended to include coordination of utilities, education, health, agriculture extension/research, as well as industrial development.

At the national level, criticism of the halting development progress in the Valley, and its inordinate drain on the national development budget, prompted the government to limit its annual budget allocation to 100 million Afghans. This was the same budgetary level provided to other provinces where major donor supported developments were underway.

With dwindling national support, HAVA backed by BuRec, pushed for higher levels of USAID support.

(13) 1965-1970--The impact of "miracle wheat varieties" begins

While the ebb and flow of the irrigation infrastructure continued under guidance of BuRec, other aspects of USAID technical assistance were beginning to show prospects of significant payoff. The agriculture sector, which was the engine for economic development in the Valley, began to move. The short strawed, fertilizer responsive, wheat varieties which were the beginning of the green revolution in other areas of the Asian Subcontinent were flourishing on HV research stations. In 1965, "Mexipak" variety, which drew its name from a Mexican variety further bred in Pakistan to adapt it to subcontinent environment, emerged as the most promising of those varieties tested. Mexipak trials were established in farmers' fields through the combined effort of the HAV Research and Extension Services, both products of USAID assistance. The services remained fragile as a result of administrative shortcomings and movement of personnel in and out of the Valley. Rudiments, however, were in place, and farmers were learning of a new wheat that promised four times the yield of their traditional variety.

By 1967, adaptation of Mexipak and other similar varieties which had been successfully tested in research stations, was progressing at an acceptable rate. The ability of those farmers on better land in the Valley, to produce their wheat requirements on less land, opened the door for expansion of the area planted to cash crops. In 1967, cotton ginning and oil seed extraction plants were constructed with assistance from the United Kingdom and Eastern Block Countries. The presence of these facilities represented further evidence of the move toward commercial agriculture in the HV.

(14) 1970--The 1970 Farm Economic Survey

The 1970 Farm Economic Survey (FES) is a creditable, in-depth survey of economic progress in the Valley using the BuRec 1965 farm economic survey as a benchmark.

The report provides an abundance of information on innovation and production changes in the Valley. Information selected from two of the 1970 FES tables reflects an increase in crop yields and total farm income, and shows a dramatic rise in both:

Table 5: Comparison of Yields for Wheat and Cotton 1963-70 (yield in kg./ha.)

Crop	Nad-i-Ali		Marja		Shamalan		Darwashan	
	1963	1970	1963	1970	1963	1970	1963	1970
Wheat	166.4	1402.2	410.4	1187.9	937	1509.4	706	950.7
Cotton	146.6	855	257.6	825.4	526.7	1267.7	182.4	896

Comparison of Net Farm Income 1963-70 in afghans

Area	Net Income	
	1963	1970
Nad-i-Ali	-122 (Loss)	31,305
Marja	2,707	31,775
Shamalan	6,442	39,001
Darweshan	7,158	32,043

Data shown does not represent weighted average yields or income. It is a compilation of data extracted from survey questionnaires which are similar and therefore comparable to those used in the 1965 survey. Although 1970 Afghan income includes moderate inflation, it does reflect a substantial increase in real farm income which had a positive impact on the lives of most Valley residents. Even with these rather impressive increases in income, per capita income in the Valley reportedly remained below national average--although some observers questioned this finding.

Yield increases reflected farmer adaptation of better cultivation practices and increased use of improved varieties of wheat and corn. Nad-i-Ali and Marja represent some of the least productive soils in the Valley, yet they showed the best improvement in yield. In Nad-i-Ali, between 1963 and 1970, average yields increased 745%. Average farm income was escalated by 31,400 Afghanis per farm. By 1970 more than 21% of Nad-i-Ali farmers were using improved wheat varieties and fertilizer. This is contrasted by Shamalan which represented the best soils in the Valley, yet only a 61% increase in yield between 1963 and 1970.

The 1970 FES clearly documented improving economic conditions in the Valley, as well as movement from subsistence farming toward more commercial agriculture. It also provided evidence that farmers were using better cultivation practices and that they were gaining the necessary skills to deal with irrigated farming in the Valley. Agriculture research and extension were the forces behind this change, even though institutionally their development was not yet complete.

(15) 1965--US Mission takes a second look at the Helmand Valley psychological impasse

In 1965, even though the Farm Economic Survey showed real production increases, USAID was becoming increasingly

concerned over HAVA progress in completing planned infrastructure works. At the same time, the GOA was pushing for increased levels of assistance in the Valley.

Below are excerpts from a USAID/Afghanistan Position Paper dated February 6, 1965 entitled "Position Paper on an Accelerated Helmand Valley Development."

> "The RGA states that it is willing to make completing of Helmand Valley development a major part of its next five year development plan. It would raise its development budget for the Valley from the present rate of about 60 million afghans a year to 100 million the first year and to several times that in subsequent years. It could afford to do this because it would have completed large expenditures for a Russian-assisted irrigation project at Jalalabad and for a Herat-Kandahar road. The RGA would also give priority to assignment of manpower.
>
> "Such emphasis in the next development plan would be possible, according to the RGA, only if it could know that it was going to receive significant outside help. Estimates are that the foreign exchange costs of development will constitute three-fifths or more of the total costs. The RGA is seeking assurance about stepped-up help from the United States.
>
> "Without such assurance, the RGA implies that it faces two alternatives. One would be to put its development emphasis elsewhere. The Helmand Valley Authority might be cut off from further central government support. Instead, it would be put on a self-sufficient basis, doing what development it could from revenues received from selling cotton, vegetable oils, and other products. The other alternative would be to seek assistance elsewhere. In about two years, the Russians will have completed the Jalalabad project and will have about 400 technicians and a large equipment fleet all mobilized.
>
> "Either alternative would mean that the United States was effectively out of the Valley. It is doubtful whether our technicians would find much receptivity if the HVA were cut back to a self-sufficient operation. The US loss of effectiveness would not be confined to the Valley. We would have lost much prestige from failure to see through a project which is considered American. (That it was planned by a private contractor, that the RGA overruled some of the contractor's recommendations, and that Export-Import financing had different criteria than AID financing are not pertinent to the identification of the project as American). Our refusal to help would be regarded as indication of a general lack of interest in Afghanistan.

US Government Approach

"The US Government has tried to make clear that it wants to continue helping in the Valley. However, it has refused to make a commitment for a definite amount of money or a definite completion date. Our hesitancy grows out of our concern about the lack of planning and hence the extent of the job. Among the unknowns are:

-- The irrigable acreage. No complete economic land classification has been made, but only a reconnaissance of varying degrees of thoroughness.

-- The cost per acre and how this will compare with potential benefits. This cost is increased by long supply lines for importing fertilizer and exporting products.

-- The availability of markets if the acreage in production and yield per acre were both rapidly increased.

Psychological Impasse

"At present, the RGA and the USG have reached a complete psychological impasse.

"The RGA is not convinced about the need for more planning. Since they do not understand land classification, they think the reconnaissance done by MKA should be adequate. In any event, they think the advantages of rapid completion are so great that they would outweigh any possible risks of wasting money by developing relatively small amounts of poor land. Delay in development also means a waste of money from past investment. The RGA seems to doubt that US laws about cost-benefit ratios for water resource projects really prevent a US commitment. In any event, if the US insists on such planning, the RGA does not want to borrow for it. The RGA assumes that marketing problems can be solved as they occur. In summary, the RGA regards the US approach as nothing but a stall, and possibly an indication that the US means to pull out, but does not yet dare say so. Unfortunately, some of our studies, on some projects, have had that motivation.

"The problem, therefore, is for the US to find an approach which will convince the RGA that we will help, but which, at the same time, will not violate sound economic criteria."

It was the Mission's position in negotiating any future Helmand Valley assistance that such assistance would be preceded by a written understanding covering the following points.

" -- The RGA understands that land classification will only be done for lands now under water command which were placed in Classes I, II, and III by the MK reconnaissance. From this would be excluded parts of the Tarnak, Marja, and Nad-i-Ali

areas checked by BuRec, so that the area classified would be close to 300,000 acres.

-- The RGA understands that drainage analysis will only be done on land which BuRec classified as I and II, except for patches of Class III land mixed in with better lands.

-- Project planning will only be done on contiguous blocks of land.

-- The US can select the blocks of land it will develop which will be as close to 50,000 acres as can be done (depending on the sizes of the several blocks needed to reach this approximate total).

-- The RGA will arrange the necessary land re-distribution and farmer re-settlement for the 50,000 acres.

-- The RGA will develop land settlement laws and policies which will assure economic units, in consultation with the US.

-- The US will lend, and the RGA will borrow, foreign exchange necessary for the development of 50,000 acres. This lending will come only after feasibility is determined.

-- The RGA will provide all afghanis necessary for all aspects of the project planning, technical assistance, agricultural research and credit, and construction, including local support of American and TCN personnel. The United States will be willing to consider PL 480 imports and allocation of their afghanis proceeds, depending upon the success of RGA efforts to raise wheat production and to exercise fiscal discipline.

-- The RGA will provide necessary personnel for specified operations and training.

-- The RGA agrees to facilitate and encourage private enterprise, including .....

-- Construction will be by the US contractors for land development. ACU will confine itself to drainage in Marja, to public buildings and roads, to major rehabilitation, and to subcontracting for contractors on power and land development."

The "psychological impasse" on US support for further development of irrigation infrastructure lasted for 2 years until 1968 when the Project Agreement for the "Shamalan Development Project" was signed.

The mission continued to support HAVA through two major electricity generating and distribution projects. The BuRec continued to support HAVA and the construction unit. In 1965 the charter of the construction unit was changed to limit its activities to the Valley. ACU was renamed the Helmand-Arghandab Construction Unit (HACU), to reflect its regional attachment to the Valley. Continued support to HAVA Administration and Planning was provided by a contract team. Agriculture development was supported by US direct hire technicians.

(16) 1968--Shamalan Development Project/HACU Equipment Loan

Between 1965 and 1968, BuRec, HAVA, and USAID considered areas in the HV that would meet USAID's HV development assistance criteria as outlined above. The Shamalan area was selected because it contained some of the best soils in the Valley. It was one of the oldest irrigated areas in the region. The Shamalan Canal built by MKA in 1952 was placed at an elevation too low to serve all potentially good land in the area. During the original construction period, funds were not available for land preparation or for new laterals. Most productive land was still without efficient distribution and drainage systems. Potential productivity of the Shamalan was several times that of Nad-i-Ali where early HV development and MKA had provided level fields and an efficient irrigation water delivery system, albeit inadequate drainage.

In 1968 BuRec issued the "Shamalan Unit Feasibility Report", a comprehensive plan for the development of slightly over 31,000 hectares in the Shamalan area. Capital cost of the entire package was estimated to be $10.5 million including $870,000 for relocation and resettlement of Shamalan residents. In order to level the land and replace meandering traditional irrigation canals, the plan called for orderly removal and care of resident farm families in each development area while construction was underway. Farmers would be resettled on comparable land upon completion of work in their area. This was to be a model project. Land development would take place concurrently with construction of an additional 148 kilometers of main distribution canals and laterals, plus 120 kilometers of new drains.

An excerpt from the report reflects USAID concerns and implementation problems of earlier projects:

> "It must be emphasized that this analysis is valid only if the provisions are followed and adhered to. If they are not, no base exists for justifying further investment in the Shamalan Project. Partial or laggard implementation, which could include incomplete construction and land leveling, will not provide the farm surpluses required to raise living standards or to cover programs costs. Partial implementation of these provisions would have the effect of delaying project development and perpetuating subsistence conditions. Conditions which result in lowered returns and incomplete development could not meet the requirements

of economic soundness demanded by section 101 of the Foreign and Related Agencies Appropriation Act of 1963."

The 1968 Shamalan Development Project--which was later known as the HAVA/HACU Equipment Loan was USAID input to the proposed Shamalan development and was based on the Feasibility Report. While this loan agreement was signed in 1968 the final decision to proceed was not made until 1971. Delays were caused by 42 pages of conditions precedent to loan disbursement. Among the most significant of these were:

-- Requirement of a cabinet decree calling for installment payments by landowners for development, operation and maintenance cost of the project.

-- A plan for the orderly removal and resettlement of existing farmers in the project area. The plan was to establish a mobile court to resolve appeals by dislocated farmers.

-- An adequate information program to prepare farmers for relocation and resettlement.

-- A HAVA/HACU implementation plan and supporting work schedule.

During the period 1970-1973 continued discussions were held between HAVA and USAID as well as USAID and AID/Washington in attempts to solve the issues surrounding HAVA compliance with the loan conditions precedent. The cabinet decree requiring farm owners to pay for development operation and maintenance costs was issued. A plan was developed to move and resettle farm families. An implementation schedule was developed. Acceptance of compliance with these and other conditions precedent to initial disbursement was issued and project implementation began. HAVA pushed to extend the canal first, then develop the land later, thereby delaying the necessity to face the issue of notifying and eventually moving the farmers.

In early 1974, more than five years after the project agreement had been consummated, the issue of notifying and relocating farmers had not been resolved. In that year, during a visit of the AID administrator to the mission, a meeting was held with HAVA in an attempt to resolve the issue. HAVA stated that it would not be possible for them to meet the conditions of the loan. The Shamalan project was terminated. The loan was converted to an equipment loan, and funds were later disbursed. By June 1974, BuRec and other AID technicians had left the Valley. After more than two decades of direct AID involvement, the "American" project was still not fixed.

USAID continued to support development of the hydroelectric plant at Kajakai and the Helmand Valley distribution system.

(17) 1972--King Zahir Shah deposed. Mohammed Daoud Khan becomes president

Available documentation does little to provide insight as to the impact of the Daoud regime on the Helmand Valley. The principal obvious impact was a shake-up in cabinet ministers including all top level personnel in the ministries. In the USAID mission new activities were put on hold; implementation issues involving ongoing projects had to wait for answers. While there is no direct evidence that the Daoud regime played a direct roll in the demise of the Shamalan Project, the lethargy prevalent within the GOA during this period played a significant role in termination of the project.

c. Recent programs in the Helmand Valley

Documentation of USAID's reentry into the Valley is limited primarily to project development and evaluation papers. Conversations with those involved at the time provided background for USAID's renewal effort. It was reported that in 1974, representatives of the Daoud Government appealed to the US for renewed assistance to the Helmand Valley. US responded by sending the AID Assistant Administrator for Near East/South Asia to Kabul to initiate discussions with the GOA and to set up parameters for projects which might evolve. As a result of those discussions, the GOA on Feb 12, 1975, through the Ministry of Finance, formally requested USAID assistance in addressing the drainage problem in the Helmand Valley.

(1) Goals and objectives

The project arising out of this request was carefully crafted to meet a number of requirements. First, it had to meet the "New Directions" criteria, i.e., the principal beneficiaries were to be average rural dwellers. Second, in the Helmand Valley environment it had to be narrowly focused with achievable goals. Third, it had to have an internal rate of return based on verifiable input data. The fourth criteria was that the project must be Afghan in every aspect possible.

To satisfy the first criteria the project areas selected were those inhabited by farmers in the lowest one-third farm income group. The project was directed at 2,580 farm families, almost all of whom held parcels of land containing less than 10 hectares. The project's internal rate of return was calculated at 20 percent. The project was designed in three incrementally funded phases. Funding of each successive phase was to be based on an in-depth evaluation and successful completion of the preceding phase. HAVA was the implementing agency and Project Directorate. The Afghan Contractor was the Helmand Construction Company (HCC), successor to HACU. US assistance was confined to advice, review, training, and grant financing on a fixed amount reimbursement (FAR) basis of 75% of construction costs of each project activity. In addition, the project

would grant finance the foreign exchange costs of new construction equipment. The project was to be carried out at a pace commensurate with Afghan capabilities in accordance with Afghan priorities. Responsibility for performance was clearly Afghan.

The first phase of the "Central Helmand Drainage Project" was authorized in May of 1974.

(2) Implementation and policy issues

The 18 month hiatus of USAID assistance in the Valley provided an opportunity for both the GOA and the USAID to reassess their respective goals and objectives vis-a-vis the Helmand Valley. The GOA wanted US assistance in the Valley. USAID, with more than $80 million investment, remained interested in supporting an activity consistent with the "New Directions" mandate that would check declining yields and in effect turn the Valley around by dealing with the perennial problem of drainage.

The Central Helmand Valley Drainage Project was designed as a "laboratory experiment" not only to answer questions related to drainage, but to test a new basic needs approach in delivering USAID assistance to the Valley. Although the GOA demonstrated a great deal less enthusiasm than USAID, a project agreement was consummated.

From the 20 plus years of USAID experience in the Helmand Valley, USAID benefited from lessons learned. Cardinal among those lessons was the need to make absolutely certain that any activity USAID supported would be "Afghan." To that end, HAVA (1) played the lead role in preparing the technical aspects of the project paper; (2) was ultimately responsible for soils investigations and drainage design; (3) was responsible for contracting for all work to be done, both hand and mechanical; (4) would be (under USAIDs "Fixed Amount Reimbursement (FAR) Procedure) reimbursed only for work completed which met USAID minimum standards.

The US Soil Conservation Service (SCS) was selected as principal implementing agency under a Participating Agency Service Agreement (PASA). The SCS was chosen because of its farmer orientation. SCS's basic tenet is to work through farmer groups to collectively achieve a common goal; to make an on-farm soil inventory to determine where to go and how to proceed. SCS thinking and planning proceeds from the farm drain to the collector drain to the main drain. Historically, BuRec's approach is to plan and implement massive irrigation schemes usually on unoccupied land. Local and on-farm planning is frequently left to other agencies.

Selection of SCS was in concert with the project design and "New Directions" mandate. Phase one of the project was initiated with a slow start because of delays in recruiting project technicians, both PASA and USAID. There were also problems within the USAID mission relative to which office was best equipped to handle the project. Both

problems contributed to slow start-up of the project, as anticipated time was also consumed in sorting out the relationship between USAID, SCS, and HAVA. There were also problems between HAVA and HCC in identifying who was to do the mechanical excavation of main and secondary drains. FAR procedures, which were imperfectly understood by all participants during the early stages of the project, caused delays in reimbursement for completed drains. Most of these start-up problems were addressed during phase I of the project.

Phase I demonstrated the efficacy of the approach as (a) where drains were installed they worked; salt problems and waterlogging were reduced; (b) farmers were involved as individuals and as groups; (c) almost 500 farmers and farm laborers were employed during the off season to dig farm drains; (d) a close working relationship developed between USAID, SCS, and HAVA; (e) FAR procedures proved to be cumbersome and required modification prior to implementation of phase II. In early 1978 phase II of the Helmand Valley drainage project was approved based on the success of Phase I.

(3) Technology transfer

It is in this context that the project may have had its greatest success. HAVA counterparts participated directly with SCS in establishing farmer groups and in working directly with farmers. Soil samples were collected on individual farms and processed in HAVA fledgling soils lab. Farmers in the project areas were accustomed to working with HAVA extension agents but were not accustomed to working directly with HAVA in areas relating to drainage or irrigation. Drainage decisions had historically been made by HAVA. Now, farmers were informed and participating.

(4) Institution building

The project was designed to minimize direct involvement of expatriate technicians. Within the institution, their role was to advise and assist. HAVA, as the action agent, progressed at their own pace and set their own priorities. The focus was on developing informal institutions, comprised of farmer groups who were to make relatively long term commitments to other members of their groups and HAVA for collective drain maintenance. Because of the short term of the project it is difficult to judge whether these informal institutions would have been viable.

The Helmand Valley drainage project was terminated in 1979 as a result of the Pell Amendment. No formal evaluations were conducted on phase II of the project. The generally favorable evaluation of phase I supported continuation of the concept through phase II.

d. Impact and sustainability

Prior to the development of irrigation infrastructures in the Valley, a small number of farmers inhabiting flood plain areas,

produced mostly at the subsistence level. Water availability was limited by poor diversion and distribution facilities plus undependable levels of water in the Helmand and Arghandab Rivers. Even after completing the dams and canals, it took years to provide a core of trained Afghans, incentives and production inputs to really get agriculture moving. By the early 60s, in spite of many problems, good farmers on the relatively good land began to significantly increase their yields.

Dramatic yield increases of the late 60s and early 70s can be largely attributed to USAID financial and technical assistance. Success can particularly be linked to AID sponsored participant training during the 50s and early 60s in the US and third countries. Without the trained Afghan researchers and extension agents, new seeds and technology would not have reached the farmer.

The 1975 Farm Economic Survey, which was the last creditable reading of economic progress in the Valley, states that when surveyed, "Farmers in general (90%) believed that their net farm income could be increased though the following ways (a) using more fertilizer, (b) using more and better equipment, (c) through land improvements (draining and leveling), and (d) through improved water supply." The survey further shows that of farmers interviewed, 80-90% of those in Nad-i-Ali Marja, Shamalan and Darwashan rely on the Extension Service as their source of information for agriculture.

This is conclusive evidence that USAID input has had real impact on Valley farmers. Access to and affordability of inputs are essential if farmers are to innovate. The first and most difficult step, however, is to really convince them that innovations will result in more income and a better life. This is also evidence of the potential for sustainability. Farmers who are convinced of the benefits of innovation, more readily accept--in fact demand--new and better innovations.

The overall importance of Helmand Valley development is characterized by the same report as follows.

> "By almost every major indicator, agricultural production for the market, as opposed to production for home consumption, has increased dramatically. For example, the percentage of land double-cropped has increased from nine percent in 1970 to more than 23 percent in 1975. In the earlier period, wheat and corn were the major crops; today, the major crops are wheat and cotton, with more than 25 percent of the land under either single or double-cropped cotton. Another indication of the move from subsistence to market-orientation is the rapid expansion of HYV wheat. In 1970 only 6 percent of the farmland was under improved wheat; today, some 44 percent of the land is under new varieties. Whereas less than 20 percent of the farmers in the Helmand reported using HYV in 1970, the 1975 survey shows that more than seventy-five percent of the farmers now use HYV.

"This transformation from subsistence to market has also had an important impact upon the national economy. Wheat production increased from 72,000 MT's to 110,000 MT's (four percent of national production). Cotton production increased from 6,000 MT's to 30,000 MT's (19 percent of national production). Corn production remained constant at 15,000 MT's (two percent of national production). In 1975, 70,000 MT's of clovers were grown compared to 56,000 MT's in 1970. These gains in total production between 1970 and 1975 derived from a switch from local to improved varieties of wheat, through a significant expansion of cotton plantings, and through more double cropping.

"Farmer incomes in the Helmand have been increasing at a fairly rapid rate. Net farm income in 1975 averaged about $823.00 US, or about $89.00 US per capita. While this is still rather low when compared to the nation-wide average, there has been a large improvement in the past 5 years. The 1970 FES found the average net farm income to be only $306.00 US, or about $32.00 per capita. In real terms, then, per capita farm owner income grew at better than 9 percent per annum over the 1970-1975 period measured in dollars. Few other areas in Afghanistan can boast of similar growth during this period."

Table 6: Average Yield of Crops in the Helmand 1963, 1970 and 1975

Crop	Yield (Metric Tons/Hectare) 1963	1970	1975
Wheat (Local)	.53	.76	1.03
Wheat (Improved)		2.32	1.89
Cotton (Single)	.06	1.03	1.07
Cotton (Double)			.64
Corn (Local)	.87	1.56	1.19
Corn (Improved		2.34	1.13
Mung Beans	.25	.70	.42
Barley		.43	.75
Clovers		15.2	21.20

Table 7: Total Helmand Production of Crops in 1970 and 1975

Crop	1970 ('000's of Metric Tons)	1975
Wheat	72	110
Corn	15	15
Cotton	6	30
Clover	56	70
Mung Beans	3	
Barley	1	
Grapes	15	

Problems identified in this report but not adequately addressed in the late 1970's are:

> "The movement from subsistence to market-orientation, however, has not been without costs, costs which in some cases are just barely off-set by the increased income. In the earlier periods, water shortages were the primary constraint to increased production and farm incomes. As the network of irrigation canals expanded and water dependability increased, farmers were able to move from their traditional wheat varieties into improved varieties and/or cash crops. While this permitted a rapid increase in production and income, it also brought problems, since water use practices for the most part have failed to keep pace with the new technologies. Today, salinization and water-logging are major problems. Generally speaking, almost all farmers in the Helmand over-irrigate their land, using far more water than their crops need and their soils can accommodate.
>
> "Another problem which appears to be emerging is insects. Both cotton and wheat have been increasingly damaged by insects and worms during the past few years, and the decrease in yields has become noticeable to the farmers. Currently, however, little research has been conducted on these pests, supplies of insecticide are both limited and expensive, and farmers are relatively unaware of how to prevent infestation, detect the presence of pests, or to treat their crops.
>
> "A third problem is credit. Although the Agricultural Development Bank supplies loan credits for the purchase of fertilizer, many smallholders are in need of other types of loans. Throughout the year every farmer has non-agricultural financial needs, and these have an important effect on the smallholders' capability of undertaking agricultural production. For example, a wedding or a sickness in the family may cut deeply into the farmers' financial or credit reserves. He may not therefore have enough cash or credit to obtain a plow, to hire laborers, or to purchase sufficient fertilizer or insecticide. Some farmers even sell their Ag Bank fertilizer to others, using the cash to pay off previously contracted debts. Low-interest credit, then, for both agricultural and non-agricultural purposes needs to be expanded."

During the period 1973 until the termination there was no expatriate technical advisors in the area of research and extension.

A 1978 USAID Helmand Reconnaissance Mission Report (author not identified) which was intended to be the precursor of a project identification document states:

"It is the unanimous opinion of the AID reconnaissance team and the SCS drainage advisory team that consolidation and expansion of gains in existing areas should receive highest priority. A quick summary of the situation in the Helmand will help explain this choice. Farmer incomes are very low even though they have risen rapidly over the 1963-1975 period through increases in production. Increases in production have occurred through an expansion of double cropping, through massive changes from local to improved varieties of wheat and from an expansion in production of a profitable cash crop - cotton. Yields have stagnated or have fallen. The possibility of further double cropping is constrained by on-farm water availability. The switch from local to high yielding wheat varieties is virtually complete. Cotton is already grown by two-thirds of all Helmand farmers. The point has been reach where farmers know as much as the extension service. There has been no new infusion of new, adapted technology to extension/research for seven years. Continued income gains from the existing system are thus improbable."

This statement does make two very important points (1) most Helmand Valley farmers have assimilated the technology that was "state of the art" in the late 60s. Yield targets set during that period have been achieved and are being sustained. (2) To go beyond these old targets and to achieve the 80s state of the art technology would require a new infusion of expatriate technical assistance and US or third country training.

Beyond the problem (or the need) for more technical assistance in research and extension, drainage and water management, is the issue of sustainability of the irrigation infrastructure. Lack of commitment to establishing some kind of system which would tap the disposable income generated by users' increased yields will eventually spell doom for the system. It seems evident that the farmers who have prospered would be the ones to lose the most if continued neglect of maintenance returns the irrigation infrastructure to the state which it was at the turn of the century.

e. Lessons learned

Those who have reviewed Helmand Valley as a retrospective case study over the past several years have proffered a number of lessons learned and have speculated on what went wrong. The lessons learned invariably reflect the discipline and perspective of the author and collectively cover an exceptionally wide spectrum. Emerging from all of this, however, are some salient points as well as some points the may have been overlooked.

A massive irrigation project such as the Helmand-Arghandab Valley, which involves one of the largest irrigated valleys in the world, can only be completed over an extended period of time. Under the best of circumstances and in the most highly developed societies it is rare

that individuals who are the driving force and whose vision is responsible for the original concept of the project remain in a decision making position throughout the life of the project. In the final analysis decisions are made by individuals or groups of individuals, who understandably, change over time. The original design or concept fades away. Consequently, the vision or perception changes, as do the articulated goals and objectives of the project.

As the Helmand Valley irrigation scheme evolved, a rotating cast of characters with different agendas sat in the decision making seats. This is true of the GOA, MKA, Ex-Im Bank, USAID/K, AID/W, HVA, ACU, HAVA, and HACU. The project plans were never complete to the extent that there was a beginning and an end--it just grew over time. Most actions were pieces with little discernible linkage either backward or forward. Dams were built, and water ran down hill onto fields where it was trapped. Some was transpired by crops, but most evaporated and salt accumulated as in the Great Salt Lake. Crops grew until the electrolyte in the soil reversed the osmosis in their feeder roots. The crops withered. The desert bloomed, but only at the margin.

- There is little doubt that the technical capacity existed among MKA and GOA decision makers to judge the consequences of the selected course of action, but all decisions were not based on technical merit. Project goals must be clearly defined, complete and technically sound.

- Within the GOA there were conflicting goals. There was an insatiable drive to settle nomads. What difference did it make if it was poor land? Irrigated poor land was better than no land at all. A rational cost/benefit approach based on economic returns could not factor in the settlement benefit. Others retained visions of the "bread basket of central Asia." Nonetheless, the canal was pushed on even though many were aware that it was wrong. There must be a meeting of minds at the outset or project targets are likely to be lost.

- USAID took on the Helmand Valley project in a defensive posture. The Helmand Valley was labeled an American project because of MKA and the Ex-Im Bank involvement and it was already criticized for poor planning as early settlers in Nad-i-ali were abandoning their farms because of waterlogging. Objective planning is frequently overshadowed by the need to accomplish secondary objectives.

- The GOA hired MKA to construct the major work of the irrigation infrastructure, reserving the task of developing the sub-works, irrigation laterals, land leveling and farm drains to themselves. The GOA never quite got around to completing the sub-works. Even when MKA was used to put in the irrigation laterals, level the farm plots, and put in surface drainage the critical subsurface drainage was left

out. The need for subsurface drainage was obvious from the outset but the resources and drive of the GOA were directed toward driving on with the main canal and expanding the system.

- Planning for projects of the magnitude and scope of the Helmand Valley should be segmented into discrete phases. Each phase or segment should not only be a part of the whole project but should be economically and socially viable with the internal integrity to allow it to stand alone.

- Had each unit of the development been fully completed and put into operation before the next unit was developed it is likely that a number of mistakes could have been avoided and that economic returns would have been generated earlier and been more enduring.

- It is extremely difficult to use AID assistance to leverage Governments into courses of action which they are convinced are not in their best interest. In each agreement the GOA attempted to negotiate away issues that were troublesome. When negotiations failed conditions precedent to disbursement were devised to protect US interests and usually accepted by the GOA. Once the project agreement was signed the concern for complying with the CP's shifted from the GOA to the USAID/Helmand Valley officers responsible for implementing of the project. The pressure on project staff mounted as both the Host Government and AID/W wanted to see the project progress and project funds disbursed. Extraordinary levels of effort and energy were expended trying to bring the Host Government closer to meeting the requirements of the CP's and at the same time trying to broaden AID/W's perspective as to what might be accepted as compliance.

- If a meeting of the minds can not be reached and action taken to remedy major issues prior to consummating an agreement, the use of conditions precedent to disbursement is not likely to achieve the intended Goal.

In the case of the Helmand Valley, project activity was terminated ostensibly because the GOA declined to comply with loan CP's.

The development of the Helmand was a major works and most of those involved in planning and implementing focused on major issues. In the view of the GOA, dealing with the social and cultural problems was a minor problem. It was also their contention that expatriates did not understand the Afghan psyche. Social problems were to be handled by the HAVA at their own pace and in their own way.

In the Afghan view, the ability to irrigate the land, use oxen, plow and seed was an inherent trait common to all Afghans. As it turned out only a handfull of nomads were able to cope with the rigors

of farm production, particularly on the poor land upon which they were settled. Within three years many gave up and returned to their nomadic life. Others who stayed were barely able to produce enough food to live on. The early settlement efforts in the Valley were only marginally successful.

Notwithstanding this negative experience, the GOA/HAVA insisted that dealing with social/cultural issues should remain within their purview. As the Shamalan Development Project was being designed concern over the social consequences of removing farm families from their land, relocating them in camps and then resettling them on comparable property when project activities were completed was paramount for USAID. Attempts to resolve the issue before the project agreement was signed failed. US Government interests were then protected by CPs in the loan agreement.

Even though project designers recognized the potential social consequences of the project, action on addressing the problem was postponed, through the CPs, until after the project was underway. The magnitude of the problem was underestimated and the potential for HAVA to handle it was overestimated.

- When a project impacts directly on the lives and livelihood of those it is intended to benefit, the beneficiaries should participate at the project design stage. They should be fully informed as to what is to be done and their opinion sought on how to do it. In the case of the Shamala there may have been no workable solution but it would have been much better for all concerned if the project had been abandoned before it was initialed than to have suffered the consequences of terminating the activity 4 years into the life of the project.

- Major projects such as the Helmand Valley mature over time. During the first two decades in the life of the Helmand Valley benefits were highly marginal. As the technical and training inputs began to mature real economic benefits began to be felt. As farmers assimilated the information provided by the Extension Service the rate of economic benefit accelerated. The average farmer in Nad-i-Ali in 1963 produced 0.17 Metric Tons/Hector of wheat. In 1975 the same average farmer planting fertilized improved wheat was producing 2.32 Metric Tons/Hectare--an increase of more than 1300%. It is also evident that when technical assistance in agriculture research and extension were terminated no new interventions were introduced and the rate at which farmers yields increased leveled off.

Serious attention was not given to the complex tribal/ethnic mix in the Valley until the early 1970s after the problem became apparent. Richard Scott who was USAID mission sociologist during the 1970's wrote:

"The starting point for understanding the complexities of Helmand Valley is its tribal/ethnic composition which is the basis of most social, economic and political organization and action. In a rural society with limited basic trust between individuals and few formalized institutions to consistently enforce social agreements, kinship and its extensions--tribal and ethnic group identity--act as the basis for social identity, organization and action. But, this identity alone is not enough to allow one to predict with any accuracy the outcome of any given event or proposed action. The total social, economic and political context of the community to be affected must be known but, again, the starting point is the ethnic composition of the specific community."

- At the outset of rural project design in Afghanistan, the issues of tribal/ethnic mix among the beneficiaries should be addressed.

2. Agriculture sector

a. Characteristics and setting

In 1952, when the USAID Mission opened in Kabul, agriculture production which represented 70% of GNP in Afghanistan was carried out in much the same way it had been for the past several centuries. In the Helmand Valley, the Morrison-Knudsen Afghanistan Company (MKA) was building a massive modern irrigation system. Within the Helmand Valley, new agriculture practices were being introduced by MKA on a limited scale to demonstrate the potential of irrigated agriculture. In the balance of the country, the GOA devoted little attention to mobilizing this resource.

The total land area of Afghanistan is about 65 million hectares. The area cultivated in any one year is about 3.8 million hectares, of which 2.5 hectares are irrigated, and 1.3 are rain-fed. In the early 1950s, about 86% of the irrigated area was planted to cereal grains, of which 70% was wheat. Wheat production in normal years amounts to around 2.1 million tons, or about 175 kg/capita, and accounts for 80 percent of the caloric intake. While irrigated wheat production remained relatively constant (even in dry years), the rain-fed acreage was vulnerable. Drought years required significant wheat imports.

Irrigated agriculture production was primarily confined to mountain valleys, along streams or rivers, where water could be directed onto farm plots--through primitive (even though sometimes ingenious)--diversion dams. Most farm families live in one of the 20,000 villages that dot the countryside. Farmers walk to their fields. Forty percent of farmland is owned by 2% of the farmers. The remaining 60% is on farms no larger than 20 hectares. As a result of Islamic inheritance laws, half of these are 0.5 hectares or less. Production on farms of one-half hectare is below the subsistence level,

requiring small landowners to work off of the farm for other sources of food or income. Sources of income include casual labor, animal production, handicrafts, or sharecropping. Sharecropping includes a wide diversity of arrangements. Two of the most common: a) the sharecropper provides all the labor and all inputs of seed, fertilizer, and tillage. He receives half of the crop; b) he provides only the labor, and receives 20% of the crop. More than 50% of this latter group live below the absolute poverty level.

In 1952, total population of the country was estimated to be about 12.0 million, with approximately 1.2 million living in urban areas. Nomads were estimated at 2.8 million, leaving 8 million as sedentary rural residents.

Nomads, with their flocks of sheep and goats, migrated from desert winter pastures in the south and west to high mountain pastures in the summer months. For grain, fruit, and nuts, the Nomads traded livestock and hides with the sedentary farmers. Nomads were also a source of credit.

The system for recording land ownership was grossly inadequate. This resulted in many disputes, rendering the land unusable for collateral, and making it difficult to tax.

b. Early programs

When the USAID Mission began functioning in Afghanistan, the Helmand Valley was the only area where the GOA was working with farmers in a somewhat organized manner. This was a result of arrangements made by MKA, which provided technical advisors in irrigation practices. To demonstrate proper irrigation techniques, MKA operated a large farm in one of the development areas. The GOA's agriculture involvement was oriented toward regulations, controls, and tax collection information. Government work was handled as a "department." There was no Ministry of Agriculture, nor was there an Extension Service.

In the Helmand Valley, nomads with no previous farming experience were being settled on farms newly developed under the irrigation scheme. The first two USAID agricultural technicians to work in Afghanistan were assigned to the Helmand Valley under an agreement with the Ministry of Education. Their activities were concentrated in Nad-i-Ali where a training center was established to teach nomad settlers how to grow wheat. The center also trained high school graduates from various areas of the country. Between 1953 and 1955, seventy high school graduates received training at the center. Forty-six remained in the Valley to work as extension agents. Ten of that group were later sent to the US for academic training. In the 1970s, one member of that same group became Minister of Agriculture.

In 1954, the GOA elevated agricultural affairs to the Cabinet level, and set up the Ministry of Agriculture. Shortly thereafter, the National Agriculture Development Project #306-11-002 was consummated with the GOA. This mostly technical assistance and training project became an umbrella project for agriculture, and through periodic extensions, lasted until 1972. Technical assistance was expanded in the Valley to include plant protection, research, forestry, surface water investigation, poultry production, irrigation, animal husbandry, and horticulture. Technical assistance was provided through a contract with the University of Wyoming.

In Nad-i-Adi, areas being brought under cultivation were largely treeless desert tracts. Tree nurseries were established in four areas of the Valley. Two were near Kandahar. By 1958, approximately 2,000 acres of trees were established on farms, mostly as woodlots. In addition to woodlots, the nurseries produced trees for planting along roadsides and for village shade trees.

In the horticulture area, improved varieties of trees, bushes, and vines were produced and distributed to farmers. Demonstration plots were established to show farmers improved cultivation practices, proper irrigation, and fertilizer response.

In livestock, new Brown Swiss milk cows were introduced. Brown Swiss bulls were mated with native cows to improve milk production. US breeds of chickens were imported, and hatching eggs were distributed to Valley farmers.

In field crop research, US wheat varieties were brought in and tested. At first, they grew well, but yields were low due to stem rust and other diseases. Research efforts were concentrated on selecting varieties of local wheat. Better strains were identified which demonstrated slightly better yields. As with all long stemmed local varieties, they could tolerate only very low levels of fertilizer, with marginal impact on yield. Yields of other field crops improved, but the more striking yield increases came through cultivation practices and improved irrigation techniques.

The project provided for establishing a Ministry of Agriculture Research Facility near Kabul. The facility was established, and agriculture research was initiated. Recruitment of a US Extension Advisor was delayed for two years. Although there were research results, there was no means of delivering those results to farmers.

In 1961, responsibility for agriculture development in the Valley was transferred from the Ministry of Agriculture to the Helmand Valley Authority. A new and separate USAID project #306-19-060 Agriculture Development--Helmand Valley was initiated that year. Within the Mission, USAID technical assistance in agriculture was split administratively. Agriculture technicians in the Valley reported to the Assistant USAID Mission Director responsible for the Helmand Valley. Agricultural technicians in Kabul were responsible to the

Agriculture Officer in Kabul. The USAID unit in the Helmand Valley soon became a Mission within a Mission.

The National Agriculture Development Project expanded rapidly in the early 60s, as seven sub-projects were set up under the umbrella of Project 002. By 1961, twenty-two US direct hire technicians staffed projects in Research, Extension, Irrigation, Forestry and Soil Conservation, Plant Protection, Agriculture Machinery/Small Tools, and Agriculture Credit.

The thrust of this activity between 1960 and 1965 was focused on building research and other facilities. High priority was also given to training personnel to staff Ministry positions.

Training slots in the US and other countries were established for participants in all the required disciplines. Most of the programs were conducted in the English language, which required extensive language training, and yielded precious few candidates. Consequently, the training program was delayed, and many of the slots were never filled.

In-country training progressed quite rapidly. Afghans were quick to learn and develop skills in most instances. Work at research stations expanded under the direction of American technicians, but US-trained counterparts were few. Most of the early participants were trained for work in the Helmand Valley. Upon their return to Afghanistan, participants trained abroad were assigned to the Valley, and were given housing and pay incentives to stay there.

By the mid 1960s, Kabul research facilities had been developed and expanded. A pilot dairy facility was operating. A poultry production plant was producing improved broiler chickens and hatching eggs for distribution. A new research station was established in Jalalabad. Fields were leveled and new irrigation demonstration systems were in place.

As the Ministry of Agriculture began to mature, it was reorganized to better serve areas outside the Kabul basin. USAID assisted in the establishment of six regional agriculture research stations located in Jalalabad in the east, Herat in the west, Kundus and Mazar-i-Sharif in the north, Kandahar in the south, and Kohdaman in the central area. These stations were located in the most important irrigated areas outside of the Helmand Valley. Research on these stations was designed by US advisors, but implemented by US-trained Afghan researchers.

In 1965, for the first time under the national program, six US direct-hire extension advisors were stationed outside of Kabul. Also in 1965, the first of the "miracle wheat" varieties was incorporated in the wheat trials at all seven research stations.

Through 1966, a concentrated effort in a multidisciplined approach to national agriculture development had failed to demonstrate measurable improvement. Both the GOA and USAID were searching for ways to improve the approach and accelerate development.

c. Later programs in the agriculture sector

In 1967, on a visit to President Johnson at the White House, Afghan Prime Minister Maiwandwal requested increased US assistance in acceleracing agricultural production in Afghanistan. President Johnson responded by appointing a 7-person review team of senior agriculturalists with expertise in wheat, irrigation, agriculture economics, and management. The team produced the comprehensive report Agricultural Development In Afghanistan With Special Emphasis On Wheat. The report strongly urged that the GOA initiate an accelerated effort to place the new fertilizer-responsive short strawed wheat seed into the hands of Afghan farmers, along with fertilizer and the recommended package of cultivation practices.

This report was the springboard that launched the national drive toward accelerated wheat production, which had self-sufficiency in wheat production by 1972 as its goal.

Specific recommendations included: a) A dedicated effort by the GOA to improve the management and administration of the Ministry of Agriculture and Irrigation. The Ministry had overall responsibility for delivery of the new cultivation technology and inputs to the farmer. b) Increasing emphasis on adaptive research and extension by elevating the number of Afghan participant trainees in these fields. In addition, it was recommended that US technicians be assigned to regions outside Kabul. c) Fertilizer distribution should be given the highest priority amidst the new technology inputs. d) The private sector should be mobilized to distribute commercial inputs, particularly fertilizer, farm machinery, and farm tools. e) Emphasis should be placed on small irrigation projects and on farm irrigation, including both surface and ground water. f) Manpower should be devoted to land inventory and a cadastral survey as a basis for increasing land taxes to support development.

The GOA responded in a limited way. Within the Ministry of Agriculture and Irrigation a new department was formed and given responsibility for accelerated wheat production at the national level. Departments of Research and Extension were combined under one head, and elevated in the Ministry hierarchy to a level just under the Deputy Minister to provide better coordination. Responsibility for fertilizer distribution was also transferred to this department.

USAID increased its technical support by providing more technicians. One US extension specialist and one US research specialist was posted to each of the six regional areas. A new Development Services Section within the USAID Agriculture Division staffed a fertilizer distribution specialist, a seed specialist, and a

farm machinery training specialist. The ranks of the USAID Agriculture technical staff rose to 35, with their full support dedicated to assisting the GOA in its quest for food self-sufficiency.

While the new department within the Ministry of Agriculture and Irrigation (MAI) was not a model of efficiency, there definitely was new direction and drive which had not previously existed. In the Afghan context and experience, this in itself stood out as a success.

Throughout the country, farmers were learning of the new wheat and its response to fertilizer. The six regional research stations and five substations were regularly visited by surrounding farmers--many leaving with their pockets full of ripening seed. The most promising wheat varieties were being multiplied by these stations. To support village level extension workers in 1969, 2,000 farm plots were placed in farm fields. These plots were planted by the farm owner using the "package of practices" being promoted by the Extension Service.

As farmers began to accept the new technology, critical fertilizer supply became the constraint. USAID provided fertilizer loans both in FY1967 and FY1970 for diammonium phosphate and urea. The Soviet Union supplied urea. By fall of 1970, adequate supplies of fertilizer were in country, but most of it remained in warehouses.

Many farmers were aware of the potential of improved wheat and fertilizer. A demand existed. Lack of credit at a reasonable rate of interest, and totally ineffective government distribution of fertilizer were the principal constraints to farmer use of this input.

The 1971-1972 drought which caused an almost total failure of rain-fed wheat crop brought starvation and death to the central region of the country. The region is isolated and is heavily dependent on rain-fed agriculture. Wheat prices rose to an unprecedented level as shortages grew. Donors provided emergency wheat for government distribution programs. The GOA was urged to double its effort to improve wheat production. Fertilizer distribution and production credit were once again identified as the most serious constraints.

During the summer of 1972, the Prime Minister of Afghanistan appointed Dr. Abdul Wakil as Minister-Without-Portfolio, to assume responsibility for emergency wheat distribution. Dr. Wakil was later given the responsibility of fertilizer distribution and the development of a system of credit. The new Minister quickly set up mechanisms to distribute wheat. Widespread starvation was averted.

For the 1971 spring planting, Dr. Wakil established as his goal 200,000 hectares of high-yielding varieties (HYV) of wheat. Also planned was distribution of a commensurate quantity of fertilizer computed at 75,000 tons. The goal may have been somewhat overstated, but with the help of private retail sales outlets and Afghan army trucks, 21,500 tons of fertilizer was distributed to 30,000 farmers.

This unprecedented achievement was facilitated by a newly devised credit system. Groups of farmers from a given village joined together to collectively and individually pledge to repay the credit each member received. Chits redeemable in fertilizer and seed were issued against the pledge. Retail dealers used the chits received in payment for fertilizer to buy more fertilizer. They were paid a commission in cash. The Agriculture Development Bank (AgBank), with branches throughout the country, act as a collection agency.

The GOA was impressed with the success of this effort, but realized that a more rational system was needed. The Cabinet directed Dr. Wakil to establish a working committee composed of representatives of the AgBank, the AgBank Contract Management Team (financed by UNDP), USAID, and a USAID industrial development contractor.

In February 1972, the "Wakil Committee" submitted its report to the Cabinet. May 12, 1972 the Cabinet issued a decree relieving the Ministry of Agriculture of its fertilizer responsibility, and authorizing the establishment of the Afghan Fertilizer Company (AFC).

The AFC, a private stock company, was chartered July 1972, and was established under the auspices of the AgBank. The AgBank reserved the majority of shares for itself, offering the balance of shares to private business men who were to become national wholesalers of fertilizer.

October 1972, AID approved a GOA loan request of $19.5 million to finance the cost of a US contract management team for 2 1/2 years. The loan was to also cover equipment required to operate AFC, United States training for AFC's Afghan staff, and the estimated fertilizer import requirements for the succeeding two years.

The AFC began operation in January 1973. Organization and staffing was the direct responsibility of a 9-man management team. Afghan management trainees were hired to counterpart each of the team members. It was intended that the Afghan counterparts would assume the management role at the end of the US team's tour in Afghanistan.

The nine expatriate positions were: Managing Director; Controller/Treasurer; Warehousing/Traffic Manager; Sales Manager, and four Regional Managers. In addition to their operational roles, they were to train management trainees in the areas of sales projections on a regional and national basis; international source of supply, price trends, and logistics of supply; procurement and shipping; relationships with wholesalers; sales and credit, and financial management.

Management trainees were predominantly former GOA employees, most of whom had US academic training. The AFC got off to a rapid start.

Six national distributors were delivering fertilizer to dealers in many remote areas of the country. In areas not served by national distributors, the AFC supplied dealers directly. The AFC worked closely with the AgBank to establish a credit system for both dealers and farmers. The system was in its infancy, but it was working.

In July 1973, a military coup deposed King Zahir Shah. The following day, Mohammad Daoud Khan declared himself President of Afghanistan. New cabinet ministers were soon appointed, and the government once again began to function.

There was a period of adjustment. USAID activities were in a holding pattern. As the government began to formulate new policies, it became obvious that the private sector status of AFC was in jeopardy. By October 1973, the new Minister of Agriculture was demanding that fertilizer distribution responsibilities be returned to the Ministry.

The GOA wisely elected to preserve the balance of funds remaining in the USAID fertilizer loan, and rejected the Minister's request. By September 1974, the Government decided that the supply for fertilizer was too critical to the national economy to remain in the private sector. The Government took over direct operating control of AFC through a supreme council of representatives from various interested Ministries. Private distribution was banned.

The contract management team was requested to stay, but their roles were switched with those of their counterparts. Members of the US team became advisors rather than managers. USAID agreed to the changes provided a) share investments made by private distributors were returned, and b) a network of private dealers was maintained. An agreement was reached, and AFC continued to function. The new arrangement worked. AFC continued to increase fertilizer distribution.

By 1976, annual fertilizer sales approached 80,000 tons. Over 51,000 farmers received fertilizer through AgBank credit. Handling losses, breakage, and other disappearances amounted to 0.5%, whereas under Government distribution, such losses exceeded 20%.

November 1975, a joint GOA-USAID evaluation of AFC concluded the following. "The performance of AFC, although not perfect, represented a great improvement in fertilizer distribution over the system earlier used. AFC has demonstrated that a Government entity organized along corporate lines could operate with considerably greater efficiency than other governmental organizations."

In 1975, an additional $8 million fertilizer loan was approved along with a $375,000 grant to support AFC management advisory services.

As fertilizer sales increased, the demand for credit also increased. To help alleviate this problem, the IBRD Second Agriculture Credit Project provided $14.0 million to assist AgBank in financing its

lending program. Of this amount, $6.7 million was available for short-term lending for fertilizers, seeds, and pesticides. These IBRD funds alone provided sufficient credit for about 50% of one year's fertilizer sales. Also, historically, the seven cotton ginning companies and the Afghan Sugar Manufacturing Company had provided funds to growers for seed, fertilizer, and labor to farmers under contract.

The combination of available credit for credit-worthy farmers, along with ample and accessible fertilizer, resulted in a continuing increase in consumption.

The table below was taken from the 1978 World Bank Report--Afghanistan: The Journey to Economic Development. This table reflects two trends. The first and most obvious is an increase in wheat production, which can be directly related to an increase in fertilizer application. The second, and less obvious, is the increase in cotton production.

Fertilizer is used on cotton, but yield responses are small compared to wheat. Total production increases reflect a significant increase in cotton acreage in response to a very favorable cotton price. This significant increase in cotton acreage has meant comparable reduction in wheat acreage. The ability to move fertilizer to farmers through readily available supply and affordable credit, allowed a sizable acreage to be devoted to alternate crops.

Table 8: Aricultural Production Index
(1968/69 is equal to 100)

	1971/2	1972/3	1973/4	1974/5	1975/6	Est. 1976/7
Wheat	81	104	115	117	121	125
Corn	87	93	98	100	101	104
Rice	87	100	104	104	108	111
Barley	98	97	100	105	106	110
Cotton	89	82	152	204	225	224
Sugar Beets	97	102	103	108	162	147
Vegetables	111	101	104	107	110	140
Fruits	78	96	101	104	106	108

The same 1978 World Bank report concluded that the AFC/AgBank combination not only worked, but had a good chance of surviving. The report stated:

> "Higher levels of agricultural production depend in turn on inputs and irrigation. The performance with regard to inputs has been creditable to the point where one can see that the continuation of the present growth and improvement of the institutions providing fertilizer, seeds and credit, will serve the needs in these areas."

(1) Overview of results

US economic assistance in agriculture in Afghanistan began in a very primitive setting. The population was in equilibrium with food production, albeit at a minimum caloric level. During the 50s and 60s, USAID assistance to national agriculture development was of a broad spectrum, providing technical specialists in cereal grains, agronomy, horticulture, irrigation, poultry, dairy, animal husbandry, and forestry. It also assisted in building the infrastructure for training and research. All of the above were certainly necessary elements to introduce modern agriculture technology to Afghanistan. In retrospect, the greatest impact of early interventions did not result from the technical and infrastructure investment, but from the training provided to Afghan participants. Three of USAID's early participants later became Ministers of Agriculture.

The Ministry of Agriculture suffered from the same kind of inability to function in an organized manner that beset most other Ministries. At the same time, those early trainees who occupied technical positions within the Ministry were able to function well in their own disciplines. When coupled with American specialists, they were responsible for introducing high yielding wheat and fertilizer to Afghan agriculture. Without the technical effort in research which was responsible for planting hundreds of trials to determine which responded best in the various regions of Afghanistan--without fertilizer trails by the thousands to determine the appropriate rate of fertilizer, and many, many more trails--it would not have been possible to recommend, with confidence, which varieties--how much fertilizer--and which cultural practices farmers should use. Without extension agents to manage farmer demonstration plots--and to carry the word to other farmers--the knowledge would have remained on the research stations.

The AFC as an institution was effective in getting the inputs into the hands of farmers as long as there was available credit. It was however, the early efforts of research and extension that created the demand.

Afghan agriculture had a long way to go, but it was on the right track. Much more technical assistance was needed. Afghan population was growing at a rate equal to the increase in production.

(2) Implementation and policy issues

Throughout the "accelerated wheat production" campaign a major policy issue with GOA was the involvement of the private sector in the distribution of agriculture inputs. USAID contended the private sector was better able to provide fertilizer distribution services and at no cost to the GOA. The GOA contended

that the Government was capable and that fertilizer was too important to the national economy to leave it in the hands of the private sector.

The crisis precipitated by the 1971 drought brought both sides closer together.

USAID had offered fertilizer loans with the proviso that fertilizer be distributed through the private sector. The GOA refused such loans until the drought made it almost mandatory to locate concessional financing for fertilizer supplies. An accommodation was reached, over the objection of several cabinet members. A private sector fertilizer distribution system was installed and USAID provided that requested financing.

With the change of government in 1973 new government policies were directed toward controlling private sector involvement and the role of the private sector in the fertilizer distribution scheme was curtailed. With certain reservations USAID, in the interest of maintaining momentum in fertilizer distribution, reached an accommodation which eliminated private distributors. In the final analysis, both interests were served, as AFC survived and succeeded in setting annual fertilizer distribution records over the next several years.

(3) Technology transfer

The heart of the national agriculture development project was technology transfer. There were successes and failures. The broad spectrum approach attempted in the 50s and early 60s proved to be overwhelming. There simply were not enough trained or immediately trainable Afghans to absorb the technology. In the late 60s and early 70s the quality of trained Afghans was adequate, but the quantity was limited. Despite the shortage of trained technicians, the new wheat technology was transferred to Afghan farmers with assistance from appropriate USAID technicians.

(4) Institution building

In the case of the AFC, in a non-public sector environment, administrative and management skills were transferred rather quickly and effectively. In the absence of an entrenched Government system where skill and objectivity had little relationship to advancement and tenure, learned skill could be applied with impunity. Also, nepotism or tribal allegiance was neither a problem nor an asset in getting or keeping a job, and being considered for advancement. Job tenure was based on productivity, not relatives. Salaries offered at all levels were higher than those of comparably skilled civil servants. Providing employees with a wage sufficient to live on reduced the felt need for "bakhshih." The fact that, at least at the outset, AFC was directly managed by expatriates, facilitated this Western approach. In a large measure any success that AFC enjoyed was attributable to goal-oriented management and employees.

AFC as an institution was functioning well if the 1978 World Bank assessment is correct. Also, fertilizer distribution levels as well as acceptable increases in both wheat and cotton production tend to confirm that AFC was launched as an institution.

d. Impact and sustainability

USAID's impact on Afghanistan's agriculture sector was significant, but vulnerable. By 1978 results of early efforts in forestry, animal husbandry, poultry, farm irrigation, horticulture and dairy were difficult to identify. USAID's input in these areas was relatively short-term. Individuals trained in these fields had little opportunity to use their technical training, as no major effort at the national level was even attempted. With the rudiments of a national research and extension service barely in place, the "Accelerated Wheat Campaign" was launched in 1967. Trained agriculturalists of all disciplines were drafted into the program. Drought in the second and third years of the campaign required that it be extended for two more years. The 1973 wheat harvest was testimony to the effectiveness of the wheat campaign. The 1973 wheat harvest also brought with it a new Government, a new Prime Minister, and Cabinet. The new Minister of Agriculture quickly transferred all principal officials who had been key to the success of the wheat program under the former government, to demeaning jobs in the provinces. They were replaced with politically supportive cronies who had little technical capacity. The net effect was to reduce the capacity of the Ministry to a level which approximated that of the early 1960s.

The same minister attempted to dismantle the AFC. Fortunately the AFC survived. Roles of the expatriate managers were changed. They became advisors, their counterparts became managers. Through 1978, AFC remained an effective and viable institution. In the absence of technical support and concessionally financed fertilizer, AFC may or may not have survived.

e. Lessons learned

As USAID's program for the support of national agriculture development matured it become obvious that the spectrum of activities which were selected for support was too broad. When the "miracle wheat" became available it provided a rallying point. As the limited Afghan technical and managerial capacity was narrowly focused on the one activity, success followed. However, after more than 20 years of assistance to national agriculture development, no viable government institution was created. Capable technicians were trained and in place; functional research facilities were there; however, the administrative and management capacity within the MAI to objectively carry out development activities was not a legacy of the USAID program.

- In building an institution from ground zero, administration and management training must receive as much attention as technical training.

- In Afghanistan a new institution designed to perform a specific task is likely to work better and service longer if a way can be found around the traditional approach to institutional organization and management. The operational success of AFC was possible because of the objective orientation of its management and staff.

- The potential for group participation to achieve a common goal was demonstrated to be a workable solution to extending credit to otherwise non-creditworthy individuals.

- In spite of tribal/ethnic barriers which preclude social intercourse, in the interest of economic gain, traditionally these groups work together to build and maintain diversion dams and irrigation canals. This tradition was closely associated with the success of the credit program and should be exploited in designing rural work projects.

- After years of inertia, mounting a "Campaign" to accelerate the spread of HYV wheat brought the technical capacity of the MAI together in a critical mass to achieve a goal. The energy created overcame much of the traditional lethargy which resulted in unprecedented action.

- Afghan civil service has evolved over the centuries. While it is not encumbered with either the negative aspects or positive benefits of colonial civil service, it remained a formidable barrier to objective action. Liability for action taken extended to the individual's family and his progeny. In order to reduce the liability, concurrence for any action taken was sought from several layers of superiors and peers--a process which could take months or even years. The safest course of action was no action at all, as there were no rewards for performance, and severe penalties for mistakes. Project design must take this into account and devise mechanisms to reduce the impact of the system on project implementation.

3. Public Law 480 commodities

Public Law 480 commodities were an important part of US assistance to Afghanistan. Between 1954 and 1979 such assistance amounted to $174.1 million, of which $32.9 million was in the form of direct grants. The balance of $141.2 million was primarily in the form of soft loans. While the majority of this assistance was provided through wheat shipments, corn and edible oil were supplied when required.

a. Role in food supply

For the first half of this century Afghanistan's cereal production approached equilibrium with its population, having barely enough food in good years, severe belt-lightening in average years, and starvation in periods of drought. During this period of USAID involvement in Afghanistan there were two bad droughts--the first in the early 60s, the second in the early 70s. In both instances the US Government responded with significant quantities of PL 480 wheat. The US concessional wheat sales plus additional quantities from the Soviet Union kept Afghan wheat supplies above the critical level and averted wide spread starvation in the country. After 1973 as the HYV wheat and fertilizer spread into the major irrigated wheat producing areas of the country, Afghanistan became self sufficient in wheat production--at least in normal years.

b. Relationship to project funding and budget support

The Afghani' proceeds of soft currency loans--as in most other countries supported the local currency cost of USAID Mission operations as well as local currency project costs. It also supported the GOA development budget.

In years of drought the relatively large quantities of wheat had a stabilizing effect on wheat prices. Consumers were protected, but at the same time, prices remained high enough to provide production incentives.

However, in normal years, after Afghanistan purchased its "usual marketing requirements" (UMR's) from commercial sources, imports impacted on wheat prices forcing them down.

Low wheat prices inspired farmers to shift more of their land into higher priced cotton. The reduction in acreage of wheat forced prices up the succeeding year. The dry year of 1977 brought this widening cycle to a halt.

The requirement that the PL480 recipient meet their UMR's is imperfect and there is a tendency for both Host Government and USAID Missions to push for PL480 even in years when wheat imports are marginally required. Afghanistan was no exception to this trait.

Table 9: Public Law 480 Commodities
(millions of $)

	Title I	Title II	Total
1957	-	6.6	6.6
1958	-	6.2	6.2
1959	-	7.6	7.6
1960	-	0.1	0.1
1961	-	18.7	18.7
1962	-	0.8	0.8
1963	-	0.1	0.1
1964	-	19.1	19.1
1965	0.6	21.3	21.9
1966	-	20.8	20.8
1967	1.9	4.2	6.1
1968	6.2	-	6.2
1969	3.5	1.5	5.0
1970	-	0.8	0.8
1971	3.0	0.8	3.8
1972	6.1	18.7	24.8
1973	6.5	3.6	6.5
1974	-	0.1	0.1
1975	-	3.9	3.9
1976	-	1.5	1.5
1977	-	0.7	0.7
1978	5.1	0.6	5.7
1979	-	7.2	7.2
TOTAL	32.9	141.2	174.1

E. Social Sector Programs

1. Human resource development

a. Education

(1) The setting

When the US initiated development programs in Afghanistan, both the Government of Afghanistan and the Mission recognized the development of education as of fundamental importance to economic and social progress. There was a dire need to improve and expand education. The literacy rate was estimated at less than 10 percent. In 1951, there were only 413 schools of all types in the country. Most were "mosque schools" taught by mullahs. Primary school enrollment (grades 1-6) was under 100,000 pupils, or about five percent of the primary school age population. Middle school enrollment of 2,250 was a minuscule proportion of those of middle school age. About 800 students were enrolled in lycees, a tiny fraction of those of high school age. Most Afghan teachers at the primary level had few qualifications and many of the teachers at secondary level were foreigners. Curriculums were unstructured but traditional. There were virtually no opportunities for technical and vocational education, and higher education was limited to Medicine and Law. In order for the nation to progress, it was necessary to develop a comprehensive program to train teachers, initiate technical and vocational training, and create a university with capacity to turn out leaders for educational development. It was also necessary to improve planning and modernize the structure and content of education at all levels. The effort was starting from an exceptionally low base, even for developing countries as poor as Afghanistan.

(2) Early programs 1951-1961

Recognizing the critical importance of technical and vocational education, the first projects sought to develop the Afghan Institute of Technology (1951) and the Vocational Agriculture School of Kabul (1952). In the following year, a broader program was initiated which was to provide teachers of Science, English and other subjects such as educational methods. The program was further expanded in 1954 and the first university contracts introduced: University of Wyoming in Vocational and Technical Education, and Teachers College, Columbia University (TCCU) in teacher training. In succeeding years, programs were added to train Afghan teachers of English in the newly created Institute of Education, then related to the Ministry (but later transferred to Kabul University (KU). A new Faculty of Agriculture and Engineering was established at the University, and the first assistance for overall university administration provided. The education program expanded rapidly in 1956, as activities in the above areas were brought into full operation. Sixty to seventy Americans were present during the next several years. Work carried out included:

- Pre-service training for teachers at all levels of the education system with special emphasis on science and English language teaching;

- In-service training for teachers during vacation periods including men and women in the ratio of 2:1;

- Development of functional curricula for primary and secondary school teacher education (including rural education), with emphasis on science, agriculture and social studies;

- Conduct of educational research on policies and improved teaching materials;

- Development of a community school program;

- Provision of vocational agriculture training to meet the needs of various employers;

- Expansion of technical education at the secondary level, both terminal and as a feeder to the Faculty of Engineering;

- Development of programs at the Faculty of Agriculture and Engineering which were graduating 20 in agriculture and 14 in engineering by the fifth year of the program (1961);

- Continuing development of a program to strengthen the planning and administration capacity of Kabul University (a 15-year old institution in 1961), as it moved into an era of broadened functions and a larger student body;

- Provision of textbooks, teaching materials, shop and laboratory equipment for various secondary, vocational, technical and teacher training institutions, as well as for various University faculties;

- Additions and new facilities for AIT, the Vocational Agriculture School, Habibia College, and the high school in Lashkar Gah (Helmand Valley), plus preparation of a master plan and construction of 5 new buildings at a single site to begin consolidation of KU on one campus; and

- Organization of an Audio-Visual Department and equipping and staffing of an audio-visual production center for the Ministry of Education.

Table 10: US Assistance to Afghanistan's Educational Development (1951-1961)

	Obligations	Expenditures
	(000 dollars)	
Afghan Institute of Technology	$863.	$686.
Vocational Agriculture Education	525[1/]	383.
Institute of Education	4,052.[2/]	2,770.
Faculty of Agriculture and Engineering	1,966	1,259
KU Administration Development	1,309	297
Audio-Visual Center (MOE)	62	6
Education Facilities (construction)	3,560 [3/]	821
English Language Training	500	2
Dollar Totals	12,837	6,224

1/Plus Afs 3.0 million, local currenty obligations
2/Plus Afs 3.2 million
3/Plus Afs 73.6 million

Activities in the field of education constituted a major theme in the first decade of the US assistance program to Afghanistan. Including US-owned Afghanis committed to education programs, that sector received a total of $14.7 million, or 7.4 percent of US funding from all sources during the first decade of US assistance. These activities largely defined the shape of the program in education for the next decade. The structure reflected the generally weak state of Afghan institutional and human resource capacities, and the hopes for development of agriculture, industry and transport, as well as the modernization and transformation of urban and rural life.

(3) Intensive development in the sixties

The development of the education system of Afghanistan remained a major thrust of US assistance throughout the sixties. Virtually all major activities under way at the beginning of the decade continued and five were added. On-going programs included the following:

- Elementary and secondary education improvement: Support for expanding and upgrading teacher training, methods, administration and supervision; revision of teaching materials and curricula; and development of English instruction at all levels. Work was carried out through the Faculty of Education at KU, the Institute of Education and within the Ministry itself and at the Darul Mo Allamein (DMA), a high school level institution for training primary teachers. TCCU advisers were also engaged in training secondary teachers and developing new curricula for the high schools at the Higher Teacher Training Center, as well as two high schools (lycees) in Kabul specializing in science and math. An average of 30 or more US professionals were engaged in these activities throughout the period;

- Agricultural education: Continuing support for development of the Agriculture Faculty at KU and the Vocational Agriculture School in Kabul. An average of 14 Americans were engaged in these programs in a variety of disciplines such as animal, plant and soil science, economics, engineering, entomology, etc. The program also provided laboratory equipment, research materials and publications, and sent many participants abroad for training; and

- Technical Education: Assistance in this area covered two levels, 1) support of the Faculty of Engineering at KU through a US university consortium, and, 2) strengthening of the secondary level activities at the Afghan Institute of Technology for training in electrical, automotive, aviation, civil, mechanical and engineering trades. During this period the AIT program shifted toward producing more middle level technicians prepared to move directly into employment. Expanded and modern facilities were constructed to house AIT activities during this period. Five persons served at AIT under a contract with Southern Illinois; the US team at KU included 15 US specialists.

New initiatives undertaken during the sixties included:

- Kabul University Administration Improvement: an intensified effort carried out by a team from Indiana University to assist KU to strengthen planning, administration and student service with a view to increasing the effectiveness and efficiency of the total university program (1966-1971);

- University Library: In connection with the US-financed construction of expanded facilities on the new integrated KU campus, a new library was established, equipped and stocked with books, and the library staff was trained;

- Architectural and Engineering Services/KU: the US financed the services of a US-firm to develop plans for the expansion of classroom and dormitory facilities on the campus of KU, and to design new classroom and shop buildings for AIT;

- Initiation of Community Schools program to teach skills directly related to rural life and involving the voluntary provision of land and labor for construction facilities. Pilot community schools were started in all 28 provinces of Afghanistan.

- Building on previous modest curriculum revision efforts, a major new activity was initiated in 1966 to build new curricula for elementary and secondary schools, and to prepare and publish teaching materials and textbooks for country-wide distribution. At the same time, responsibility for assistance to elementary teacher training was transferred from USAID to UNESCO.

The comprehensive US program carried out during the middle decade of support for education substantially met Afghanistan's requirements for a set of institutions to train the next generation of leaders for key development areas. US development efforts also laid the central institutional basis for a general expansion of improved elementary and secondary education to the rural and urban areas of the country. A large body of people had been trained, through study abroad and on-the-job experience, to perform in leadership, administrative, planning and teaching roles. Well-equipped facilities existed to continue the process. If the task undertaken by the US was not yet quite complete by the beginning of the seventies, its end was in sight, and most of the institution-building programs were terminated within one to three years. Problems remained, however, and the process of consolidation would at best take time.

What then were the key problems remaining in Afghanistan's education sector in the early seventies? Briefly they could be summarized as follows:

- General constraints included:

  - -- Fragmented and uncoordinated ministry-level planning;

  - -- Inability to delegate authority within a rigid administrative system, resulting in too much detail coming to senior level officials so that delay in decision-making was endemic;

  - -- Limited funds devoted to education. With only two percent of GNP used in the sector, Afghanistan was in bottom quartile among developing countries. Budgets were inadequate to provide for maintenance of

facilities. This impacted the ability to provide practical training in shops and laboratories;

-- Traditional attitudes toward change had a negative impact on the quality of education;

-- Inadequate preparation of students at each level of education for entry into the next level.

o Constraints on University programs included:

-- Despite trained staff being in place in the several faculties supported by the US, and vigorous efforts to improve administration, the university possessed inadequate capacity to plan, administer, and integrate programs, to coordinate among faculties and to bring the University's resources to bear on the problems of the development of the nation; and

-- Political strife within the University reflected tensions and dissatisfaction in the larger community. These hampered effective educational activity and undermined the environment for further delivery of technical assistance, even where specific problems might suggest a continuing need.

o Constraints to Elementary and Secondary programs included:

-- Limited proportion of school age children in school: less than 30 percent of primary school age children attended schools (about 50 percent of males but less than 10 percent of females). About one million girls and half a million boys age 7-12 were not in school;

-- High pupil/teacher ratio: the average ratio was about 50 to 1, even higher in one-teacher schools;

-- Low qualifications of teachers: forty percent of primary school teachers were without professional qualifications;

-- Low level of access to education among rural children: there were about 3,000 village and primary schools in the country, while there were 20,000 widely dispersed villages;

-- Many schools had poor or no facilities: three percent of primary schools and seven percent of village schools had no building in which to meet, and many buildings used as schools were poorly suited to the purpose; and

-- Poor linkage of teacher training and curricula: Although curricula and instructional materials were in the process of being modernized, the linkage with teacher training was weak. There were also difficulties in view of the inadequate credentials of many teachers and the absence of incentives to encourage inspectors to pass on to teachers the content of training courses they attended.

(4) The restructured program of the seventies

Between 1970 and 1973, the large programs of technical education and Faculty development at Kabul University drew to a close. This reflected several factors:

- o Major development of staff capacity and facilities in the preceding 20 years of massive US effort;
- o The conviction that it was time to shift the emphasis toward greater coverage and improved quality of instruction for primary and secondary schools throughout the country;
- o The unrest which had developed at KU created difficult circumstances for expatiate personnel involved in programs with student contact; and
- o The belief that efforts should be concentrated in improving the relevance, development outreach and management efficiency of KU administration, and the feeling that programs needed to capitalize on investments already made in the University.

During the mid-to-late seventies, AID evolved a set of programs to respond to the critical gaps in educational performance and manpower capacity which persisted, despite the many favorable results obtained over the previous two decades.

To make KU more effective, a new project was initiated in 1973 to improve administration, planning and student services, and to strengthen the university's ability to serve the nation's development more directly. Advisers from the University of Nebraska worked with senior administrators to create systems for curriculum development and administrative management procedures that would be self sustaining, and to develop an overall attitude of self-reliance. In addition, the program sought to encourage and strengthen research among faculty members through support of the Kabul University Research Center (KURC). A further objective was to forge links between KU and GOA operating ministries, and to provide research services to them in forestry, electric power, rural development, etc. A wide variety of research projects were carried out by KURC.

Similarly, the Nebraska team sought to facilitate and strengthen the capacity of the Faculty of Engineering to provide engineering

consulting services through the Center for Engineering Consulting Services and Applied Research (CECSAR), which had been established in 196[illegible]. Some 235 small and large projects were undertaken, of which 153 were carried out by CECSAR with total fees paid by clients of 2 million afghanis ($45,000). The project included regular participant training as well as special arrangements for "guest lecturer" assignments to broaden the experience of senior faculty members. The Nebraska team worked through 1977, and accomplished some significant results in research, consulting, curriculum reform, new course and program offerings, academic administration, etc. At the same time efforts made to obtain formal charters for KURC and CECSAR, and to obtain ratification of a new constitution for KU itself, were never forthcoming from the GOA. Many management reforms to which the University agreed were not able to be fully implemented, as they conflicted with established rules and systems of the Government. Instability of the university's administration and academic structure also inhibited progress at KU.

One program which had begun earlier and was carried forward through the seventies, with TCCU support, was the Curriculum and Textbook project. It grew steadily during the period, though not without difficulties, due to drastic personnel changes and radical reforms in the structure of elementary/secondary education. Total project costs exceeded $6 million over its 11-year life. Accomplishments of the Curriculum and Textbook project included:

- Modern primary school curriculum structure (values, goals, objectives) developed and approved;
- Framework developed for preparation of materials, and criteria established for review and approval of textbook and teacher guides;
- Capability developed in the Ministry to:
  - -- update curriculum structure, and
  - -- prepare, write and test primary textbooks; and
- Writing, testing and revision of 142 text book manuscripts for use in primary grades, of which 75 had been printed and distributed nationwide at the end of 1977. These books were in subjects such as: language, math, social studies, science, health, etc.

These were significant accomplishments. Research showed that where students had good textbooks their learning comprehension was substantially improved.

The overall impact of the program remained somewhat blurred by the lack of effective training in the use of the new materials. This problem persisted through the end of the project. In addition, the

plant and facilities for textbook production had become substantially depreciated, and their capacity and layout militated against achieving the volume of production needed to fulfill projected output.

In 1975, a Rural Primary Schools project was initiated. It sought to address the problem of limited school facilities, including hostels for women teachers, and to increase the attendance of girls in rural primary schools. The program was also intended to support achievement of the GOA objective of improving the balance of the education system. Growth in the number of school places in secondary, lycee and higher education (20, 40 and 17 percent annual rates respectively) was much greater than the 5 percent annual rate for primary schools.

The program also addressed the need for better balance between urban and rural access to education. An overwhelming proportion of schools were in Kabul, and to a lesser extent in other cities. Likewise, disproportionate numbers of female students and teachers at all levels were in Kabul.

As of 1977, the process of school construction appeared to be moving forward well under the FAR financing procedures. The MOE took advantage of the discipline imposed on design, cost estimating, construction supervision, and adhered to standards more readily than other agencies (e.g., MOPH) involved in FAR. It was the intent of the MOE to double the number of primary and village schools by 1985. Existing documentation does not permit an assessment of how well they were performing in 1978 and 1979, but in the early months the progress was good in delivering completed and operational rural schools.

(5) Assessment of accomplishments in education

(a) Objectives

During the period from the late fifties to the early seventies, the US education program was aimed at contributing to overall development by pursuing the following major objectives:

- Building a self-sustaining higher education institution (Kabul University), capable of providing high level manpower for leadership, management and technical roles to support the development of Afghanistan, with special emphasis on agriculture, education and engineering;
- Creating and expanding the capacity of Afghan institutions to train middle level manpower including:
  - technical personnel at the technical or foreman level in a variety of skills and industrial fields for direct entry into the labor market, or to undertake higher level training,

-- artisans and skilled workers in trades such as carpentry, plumbing, electrician, motor mechanics, agriculture, etc;

- Expand and upgrade the quality of pre-service and in-service training for teachers at the elementary and secondary levels to broaden the education base; and

- Improve the quality of elementary and secondary education through modernization of the curriculum, and the provision of teaching materials and textbooks which would be consistent with Afghan cultural values, and would better prepare students for contributing to development.

In the seventies the emphasis shifted somewhat to focus as follows:

- Strengthen the management, planning and administration of Kabul University, and build linkages with other institutions for greater relevance and capacity to contribute directly to development through research, consultation and improved curriculum and course content;

- Continue to improve curricula at the elementary and secondary levels, and greatly expand the output and distribution of teaching materials and textbooks;

- Expand the opportunities and improve the quality of education in rural primary schools, especially for girls in the 7-12 age group, and improve the capacity of the Ministry to design and construct suitable school structures in rural areas.

(b) Implementation and policy issues

The policy of AID in the education sector throughout the first two decades of assistance to Afghanistan was to focus primarily on the development of leadership and technical manpower as key underpinnings of modernization and development. There was some tension with the Afghan government which adopted a policy of seeking to achieve universal free public education at the elementary level by 1990. A concern with improved quality came late to the GOA, but after 1964 there was greater attention on the Afghan side to qualitative issues. The emergence of a strong popular demand for education in the sixties placed the GOA in an awkward position because the quality of education was clearly less than adequate at all levels, while financial and human resource limitations imposed severe constraints. Neither the GOA or USAID was able to ensure that the structure and emphasis of the developing education system were appropriate in the absence of a manpower survey and a manpower plan. This problem was never satisfactorily resolved, but employment of graduates did not become a serious issue (except for University graduates in the 1970s), perhaps because there was such a large gap between need for trained manpower

and the system's capacity that it was never really closed. Quality of graduates, however, was problematic in some areas: primary school graduates were frequently under-qualified to enter secondary school; secondary schools gave little attention to preparing students for employment and their curricula were weak in mathematics and science; agriculture was given less emphasis in primary schools than would have been desirable in view of its importance in the economy; vocational agriculture programs were few and had mixed results; technical programs at the secondary and higher education levels were inadequately complemented by work experience; and too little opportunity existed for shop and laboratory hands-on work.

(c) Technology transfer

Without question the AID program developed a pool of trained people in the full range of fields addressed in education. Their value to Afghanistan was among the greatest assets to development resulting from US efforts. The results were achieved through both training abroad (in neighboring countries, at the American University of Beirut and in the US) and on the job. Nevertheless the fields in which they were trained, and the specific skills acquired, may more precisely have reflected the US systems from which advisors were drawn than would be desirable. Greater focus on Afghan conditions, the emerging needs of Afghanistan and technologies most relevant to its development could have produced better results. As time went on, however, greater attention was given to linking the Afghan students' study to Afghan development needs by such means as graduate students doing thesis and dissertation field work in Afghanistan, and encouraging research and consulting services on current problems in the country. The curriculum and textbook development process was also involved in a manner to reflect Afghan values and aims, and was carried out by Afghans.

(d) Institution building

A host of key institutions in the education sector were initiated and/or expanded, and their capacities greatly improved, notably: Kabul University and the US assisted Faculties of Agriculture, Engineering and Education; the Institute of Education; the Ministry of Education; the Afghan Institute of Technology, and the community schools in rural villages. Generally the educational programs developed were successful so far as their efforts to provide training within the classroom was concerned. The institutions, however, suffered continuing difficulties. The following were typical:

- Instability of leadership as governments and their priorities changed;
- Inadequate budgets to provide adequately for supplies, and for facilities and equipment maintenance;

- Low salaries and poor incentives for faculty members and teachers (especially for teachers to serve in rural areas);

- Weak linkages to other organizations which supplied services, could strengthen their programs and/or which were expected to employ their graduates;

- Inadequate planning, management and administrative capacity complicated by an over-layer of rules and regulations of the GOA which inhibited sound internal administration; and

- Cultural traditions which resulted in personnel placements based more on family, tribal and political considerations than on merit.

(e) Impact and sustainability

Development is a long term process especially from the weak base from which Afghanistan began at the time US/Afghan cooperation was initiated in the early fifties. The 25 year span during which that effort was carried out was a short time in the context of a nation's development. The abrupt interruption of the cooperation also complicates making a balanced assessment. That the program had important impacts is beyond question. The following can be cited:

- Afghanistan's only university of higher learning was brought into being, and achieved a substantial increase of integration among the faculties despite factors keeping them separate such as: internal rivalry, various donors supporting different faculties and encouraging use of different languages (French in Medicine, Law and Letters; German in economics and science and Russian in the Polytechnic); and an attachment to the European academic tradition of strong faculty independence. Enrollment in the various faculties of direct interest to the US reached projected levels by the mid seventies, based on well-administered entrance examinations, though the numbers began to strain both the physical facilities and staff capacity. University graduates were being placed upon graduation though some fears began to be expressed that the numbers of graduates might be difficult to absorb, especially in Agriculture;

- The US support of the Faculty of Education at KU was a significant factor in developing English language programs for secondary schools and the University, and for training secondary school teachers in many subjects. It also developed secondary school administrators. It was less successful in developing mathematics and science programs for the lycees, to facilitate their becoming feeder schools for the Faculty of Engineering. The Faculty of Education was

reorganized and split during the late seventies after a period of turmoil in the University;

- Primary teacher training was a major activity of USAID (though TCCU) up to 1966, when that function was transferred to UNESCO. Continuing US efforts focused on curriculum development and textbook production (C&T). Despite those efforts, primary school enrollment lagged behind the other segments of the pre-university program throughout the seventies, and continued to be over-represented in urban areas. Quality of primary education improved by the end of the period, however, with the wider availability of improved curricula and textbooks. That improvement might have been greater if there had been a larger proportion of qualified teachers, and better in-service training in the use of the new materials. Some observers have also suggested that with USAID and UNESCO providing support to the C&T and pre-service teacher training programs, coordination was less than fully satisfactory.

- Vocational agricultural training was supported by the US for ten years but was terminated in 1965. The school was located in Kabul. That was a contradiction because students from Kabul were not acquainted with agriculture and once having studied in Kabul neither city nor country boys wanted to accept poor-paying rural jobs in agriculture;

- AIT was fairly successful as a feeder school to the Faculty of Engineering, but encountered difficulties in giving terminal graduates sufficient practical and/or work experience to serve as mid-level technicians and/or foremen on the job; and

- The C&T program evolved slowly over its life from 1966-78 but eventually produced curriculum and teaching materials reflecting Afghan values and objectives, and textbooks in sufficient quantity to meet a substantial portion of the growing national need. There can be little doubt that this was a significant program which gave Afghans very valuable experience on which to build.

The sustainability of the programs in education is difficult to assess given the increasing turmoil in the country during the seventies. It seems clear that the basis for their viability had been laid by the time US support was withdrawn: early seventies for AIT and the Faculties, later for KU administration and the C&T program. The institutional structures had become well rooted by the time US support ended. Given a subsequent period of reasonable political stability and moderate economic growth, most of the programs could probably have survived and evolved into strong contributors to Afghanistan's development. They survived in the circumstances that prevailed up to 1980, despite severe problems in the areas of leadership instability,

staff changes and disruptions, inadequate budgets, low salaries, weak incentive arrangements, etc. The potential for future reassembly of staff personnel is problematic, but if that asset could be salvaged much might yet be done to give the key elements of the education sector new life without a long start-up phase.

(f) Lessons learned

Based on the foregoing, some lessons which might be drawn from the 1950-79 experience in education are the following:

- The roughly $50 million spent on development of the education sector created a very substantial pool of manpower with varied skills for the administration and implementation of education programs in Afghanistan. To the extent that this manpower could be reassembled, it could constitute a base for re-instituting a renewed effort in education;

- A major change occurred in the popular attitude toward education, even in the rural areas, so that by the mid sixties many rural communities were prepared to mobilize local resources to build and equip community schools in the belief that schooling was important to the well-being of the children and the future of the community;

- Significant improvement was made by 1974 in both quantitative and qualitative terms in using education as a means to create human resources for development, but a very large majority of the populace remained without access to schooling, and was destined to reach adulthood with a limited view of the potential for change in their environment. Among those who attended primary school, the great majority dropped out at or before completion. As a result they likely remained functionally illiterate, for lack of any means to continue learning or to maintain the limited literacy they may have attained;

- The benefit of hindsight confirms the appropriateness of the strategy adopted by the US in its assistance to education in Afghanistan. The development of institutions to train those who could plan, lead and implement education in the future was the first priority for support. Even with the substantial inputs made, however, 25 years were necessary before the numbers of skilled and trained leaders and teachers was large enough to begin a major expansion of the participation of the rural population in education;

- Coordination, planning, management and administration capacity remained critically limiting factors to improvement of the quality of education at all levels, even after 25

Page Not Available

activities. A concern for increased revenue generation and more efficient tax collection continued. Better coordination between long-term development planning and annual budgets was also a major focus of attention.

Programs in the late sixties to strengthen planning and administration included:

- o Substantially expanded activities in fiscal and financial management reaching into a variety of ministries where AID programs were underway in addition to the Ministry of Finance (MOF). Among these were:

  -- continued development of budget, accounting, tax administration, customs and land tax systems in the MOF;

  -- Reorganization of the Budget Department;

  -- Redefinition of fiscal management and budget operations in various ministries operating through a newly established Office of Management Improvement in the Prime Minister's Office;

  -- Continued development of the cadastral survey;

- o Expanded efforts for development planning based in the Ministry of Planning and involving intensified collaboration with other development organizations such as the HAVA and the Ministry of Agriculture and the development of closer working relations between Planning and Finance to link annual budgets more effectively to plans. The contract planning team was deeply involved with formulation of the Third Five Year Plan, and worked closely with other ministries to formulate projects and programs and to improve planning procedures. When resource shortfalls forced a revision of the Plan, the US team also collaborated in the scaling back of commitments. Throughout this period the US team advised the Minister of Planning and prepared policy studies on issues relating to debt management, foreign exchange and industrial expansion. The team also collaborated in formulating plans and programs for creation of new development institutions such as the Agricultural Development Bank and the Industrial Development Bank. There were varying degrees of collaboration with West German, French and Soviet teams also advising the Ministry of Planning during this period; and

- o Inclusion of management training in the overseas programs of an increasing number of participants receiving training in technical fields.

Toward the end of the sixties the Mission made an assessment of the progress over the preceding seven years to develop planning capacity in the Ministry of Planning and in the Government as a whole. The Mission concluded that while many individuals had gained significant knowledge, many had also left by transfer and attrition. A "critical mass" of planning personnel had not been assembled and the capacity for initiative and self-sustained planning was still a long way off. The existing project for support to the Ministry of Planning was therefore extended by agreement with AID/W through the close of FY 71.

During 1965-71 another major effort to improve planning was undertaken in the Helmand Valley by introducing a new contract team to advise HAVA on management, planning and administration. Independent planning capacity within the Authority was believed to be important to achieving greater efficiency and impact from its activities. The group achieved significant impact in the reorganization of HAVA operations and in supply management, equipment procurement and maintenance and in administrative operations. It fell short of its objectives in overall planning in part due to internal advisory team problems but also because of staffing, attitudinal and leadership difficulties within HAVA. These difficulties reflected both the complex issues regarding redevelopment of the Shamalan area in the Helmand Valley as well as the institutional problems akin to those in the ministries in Kabul.

Programs to improve administration and management continued into the seventies for basically the same reasons that had impelled their initiation in the fifties, namely that the weak capacity to manage and implement in virtually all Afghan institutions was a critical constraint to the achievement of economic growth and social advancement. As a result programs in the following fields were carried out:

- Continuation until mid-1971 of advisory support to the Ministry of Planning through a team reduced from six to five members. The reduced team placed increased emphasis on staff training, data collection and evaluation systems, as a means to provide maximum future capacity for independent planning operations. Over the ten year period 1962-71, the cost of services provided to the Ministry of Planning totaled nearly $3 million;

- Maintenance of the assistance to the Ministry of Finance and other GOA agencies by the Public Administration Service (PAS) team and a Customs Bureau advisor through 1975. Their advice was aimed at improving administrative systems, increasing revenue collections and providing better information for policy decision making. They also focused on developing incentives for private investment, and on forging stronger linkage between longer term planning and annual budgeting. In substantial degree the activities and objectives of the program at its conclusion in 1975 were essentially those that

were characteristic of the activity from the outset. The total cost of the program over its 21 year life was approximately $7.1 million;

- Initiation in 1972 of a project to develop a government-wide statistical system through creation of a Central Statistical Office (CSO) to produce data essential for policy formulation, monitoring and management of development programs. It was expected that the CSO would have responsibility for agricultural, industrial and construction statistics, price indices, foreign trade data, household sample surveys, GNP accounts, population census, data processing and training, as well as information storage and dissemination. The program achieved many of its objectives but was plagued by the lack of interest of the GOA in consolidating major statistical functions into the CSO, staff shortages and inability of the CSO to meet training goals. Management problems and lack of staff incentive also posed difficulties;

- Implementation of the very ambitious Afghan Demographic Studies (ADS) program (funded under the population/family planning project as mentioned in Section Ia.) was undertaken to meet an initial need for demographic information as a basis for planning and management decisions relating to population matters and to development generally;

- Management systems improvement was a key objective of the Basic Health Services project (1973-79) carried out by Management Sciences for Health, a non-profit group. The project made some significant advances but advisors also found that they had to make major concessions to the realities of the political environment and cultural factors, often overriding program objectives. The greatest contribution of the program was probably to move toward the delivery of basic health services at the village level on a quasi-private basis; and

- Implementation over a six year period (1972-77) of a $2.1 million participant training program aimed at improving executive management capabilities of key development agencies of the GOA. Another objective of this training was to modernize the legal system by providing training to legal scholars, jurists and officials of the Ministry of Justice with a view to facilitating change and a more efficient administration of justice. It was hoped that this would facilitate development and social equity. A total of 66 management and legal participants completed programs over the life of the project.

(3) Implementation problems

A number of significant implementation problems were characteristic of most of the activities aimed at improving management, planning and administration in GOA agencies. They include:

- Shortage of staff and qualified candidates for training;
- Low salaries and absence of appropriate special incentives to encourage participation and commitment;
- Limited interest among senior officials and political leaders in taking optimal advantage of management improvements for policy, planning and decision-making purposes;
- Instability of leadership and organizational structures;
- Difficulty of creating a "critical mass" of trained, motivated and capable personnel to become a self-sustaining entity with capacity to lead and/or implement; and
- Tendency for programs to disintegrate over time even after once being successfully established.

(4) Impact and Sustainability

Every observer and analyst who has examined the Afghan development experience has commented on the weakness of planning and management capacity as a serious constraint to development. As late as 1978 the World Bank took a comparatively optimistic view of Afghanistan's future development and growth potential, but still said that "....the optimism must remain measured. The obstacles to development remain daunting. The civil service is still not development oriented. Most administrators are unmotivated, poorly trained and hampered by an archaic civil service system. There are shortages of almost every category of trained manpower, and even those who have been trained, have been poorly trained. There are any number of pending decisions and proposed reorganizations, and little sign of movement on them." Finally, in the same report the Bank observed, "....when all is said and done, it is the capacity of the administration to carry out these programs which will determine the pace of Afghanistan's development."

USAID/Kabul in a comprehensive assessment of program prospects had essentially the same view in late 1978. The problem of planning and administrative deficiencies in the GOA was among the most pervasive and intractable issues confronting AID and other donor efforts throughout 1950 to 1979 period.

This is a disappointing overall appraisal of the impact of 25 years of effort by the US and other donors directed at modernizing planning and administration within the GOA. If that appraisal is

accepted, it raises the question of why the capacity and performance of the management staff of Afghan ministries and other organizations remained so inadequate. Factors purely internal to the system, such as low pay and inappropriate incentives, seem inadequate to explain the situation. It appears that the answer must be sought in the traditions of the society and its cultural values. Almost certainly the strong loyalty to family and tribe, which transcends loyalty to the nation and its objectives, is at least a partial explanation. Hopefully, however, there is a reservoir of capacity in those trained individuals which can be re-mobilized and, in light of the experiences of the ensuing decade, become a stronger force for development than in the past.

(5) Lessons learned

Identifying lessons in this field for possible application in future efforts is fraught with particular difficulty. A few suggestions may be offered:

- Technical advisory assistance and training are not adequate to ensure that a self-sustaining and internally motivated administrative system can be created in the midst of an archaic superstructure which is deeply affected by the traditional culture;

- Cultural aspects of the management and administration system should be explicitly addressed as part of any future effort to improve administration in the Afghan setting;

- The private sector appears to be less affected than the public sector by the weight of tradition as a constraint to the achievement of administrative efficiency;

- Programs which devolve responsibility to more localized levels, where there is a closer link between the operators and beneficiaries of programs, may be less constrained by the archaic administrative mores which dominate public bodies at the central level; and

- Providing incentives which are directly relevant to encouraging achievement of programmatic objectives, and which are not inconsistent with cultural traditions and values, is an important device to overcome administrative constraints in the public sector. They probably are more relevant at local than at central levels.

2. Public health and sanitation

a. Setting and environment

The health of the Afghan people is greatly influenced by their physical environment. Rugged terrain imposes severe isolation. A harsh climate in most areas creates stress. The wide dispersion of

the populace and its overwhelmingly rural character together with transportation constraints limits access. Poverty, illiteracy, dietary deficiencies, poor sanitation, lack of safe drinking water, inadequate housing and poor personal hygiene had a negative impact on the vast majority of the population. Until the 1970s there were virtually no modern health services accessible to rural people.

As a result of these unfavorable factors, as late as 1976 the people of Afghanistan experienced:

- A crude birth rate of 50/1,000;
- One of the highest maternal mortality rates in the world (680/100,000 compared to 0.3/100,000 in Sweden);
- A ratio of 116 males to 110 females, again one of the highest in the world attributable mainly to the high maternal mortality rate;
- An infant mortality rate in the mid-seventies estimated at 180/1,000 live births, a very high rate even among the poorest developing countries;
- Life expectancy at birth of approximately 40 years;
- Low levels of worker and producer productivity due to chronic and debilitating diseases;
- Poor access to health services. In practical terms not more than 15 percent (and perhaps as little as six percent) of the settled population had access to modern health services and the Nomadic or Transhumance groups had far less access;
- A morbidity rate among women aged 30-45 years twice as high as for men.

Afghanistan was recognized from the earliest days of US assistance to have severe health problems and very inadequate health services. Afghan authorities sought and received outside assistance but the health status of the populace remained very unsatisfactory. Even in 1988, women's health status was the lowest among a group of 99 countries, according to data compiled by the Population Crisis Committee for the International Data Base on the worldwide health status of women. For comparison, Finland received the highest rating (20), Sudan had a rating of 10 and Afghanistan a 3.5 rating. Men's health was better mainly because they enjoyed greater status in the society and were subject to fewer risks.

b. Early activities, 1950-1972

In the first years of the US program in Afghanistan some very modest beginnings were made in supporting national health and

sanitation activities. In addition, some more substantial, but still limited, efforts were made in the Helmand Valley. Health issues surfaced in connection with the opening of new lands to settlement in the Helmand Valley in the fifties. Among the first activities undertaken with official US assistance was the stationing of a US Public Health Service physician in Lashkar Gah. From 1954-55 this physician assisted the Helmand Valley Advisory Service supporting the HAVA. He was responsible for advising on:

- The work of sanitarians in installing latrines and in health education in the new settlements;
- Planning the development of small base hospitals in Lashkar Gah and Girishk;
- Staffing and initiating outpatient clinics' services at the base hospitals;
- Establishing a logistics plan and dispensary control systems for drug supplies at the hospitals;
- Managing outreach services to the various settlements in the Valley through health workers in the villages and by periodic health team visits using US-supplied vans;
- Supporting an isolation hospital at Nadi-Ali where settlement was limited and the structure originally planned as a service hospital was not practical because of the small number of settlers in the immediate area.

In addition AID supported programs to control small pox, typhoid, typhus and malaria. These efforts were reported to be quite successful in reducing the incidence of these diseases. Since they were largely carried out independently from the regular Afghan government health services, they were neither dependent on those weak administrative systems, nor did little to strengthen government capacities. Despite a recognition that dependence on unsafe water supplies was a serious and continuing source of infection among Helmand Valley farmers, no work was undertaken to eliminate dependence on the irrigation canals as a source of drinking water. The principal reason for this was the strong view among local people that any moving stream of water is safe, while any still water source (including wells) is unsafe. The provision of pit latrines in the settlements was an attempt, however, to improve sanitation which had less than optimal impact due to difficulties in achieving settler attention to adequate maintenance of latrines. Both dollar funds and local currency generated from sales of US supplied wheat were used to support the capital and operating costs of health and sanitation programs in the Helmand Valley. During the fifties the success of the program was hampered by the inability to recruit and retain medical and paramedical personnel in the Valley and by lack of resources to initiate and maintain preventive public health programs.

Virtually no MCH programs existed to meet the needs of women and children.

AID initiated two separate projects in the field of health and sanitation in the fifties but only one received significant funding, all of which was in fact focused on the Helmand Valley area. Project #306006, Health and Sanitation provided funding for expansion and equipment for the clinic at Girishk. The clinic provided rural outreach services and a training center for rural health workers in the Valley. Project funding covered training in health and sanitation for HAVA personnel at the American University of Beirut. Total funding under the project over the 1955-58 period was $76,000. The HAVA recruited medical volunteers through CARE-Medico (but without official US support) for duty at local hospitals.

During the sixties AID addressed the health sector in a very limited fashion. Support was provided to Avicenna Hospital in Kabul in the period 1961-64 through the financing of equipment and supplies for the operating rooms, laboratories and patient-care wards. This assistance complemented short-term visits by US and Canadian medical volunteers under the CARE-Medico program. Together they significantly strengthened the medical services available in the capital city. The Support to Avicenna complemented funds used under the "Kabul Hospital" project to build a dispensary to serve the official US community.

Support for rural health in the sixties was carried out by PVOs with little or no official US Government assistance. Activities included:

- Medical Assistance Program (MAP) providing broad ranging but very infrequent visits to widely scattered rural areas (as agreed with the Ministry of Health);
- The National Organization for Ophthalmic Rehabilitation (NOOR) provided ophthalmological services (mainly cataract surgery);
- CARE-Medico which worked mainly in Kabul but on occasion provided some services in rural areas through short- and long-term volunteer doctors and paramedical personnel from the US and Canada.

Throughout the sixties the medical services available in Afghanistan were largely limited to hospitals located in cities and towns and services were organized largely to cater to males. There continued to be an acute shortage of doctors in most parts of the country (most doctors practiced and resided in Kabul) and of trained paramedical (especially female) personnel. Since custom demanded that female patients be treated only by women, the access of women to medical care was extremely inadequate.

c. Health programs in 1972-79

The first attempt by the US to support rural health care delivery on a national scale was begun in 1973 as a part of the on-going Population Family Planning Project initiated in 1968 and concluded in 1977. AID supported a program to strengthen rural health delivery through the Basic Health Centers (BHCs) of the Ministry of Public Health (MOPH). The initial strategy of the program contemplated achieving substantially improved coverage of the rural population by increasing the numbers of BHCs. Women's access to health services was to be improved by training and placing nurse midwives and auxiliary nurse midwives (ANMs) at the Centers. To this end the project funded contracts to support two activities:

- Improved management, procurement and logistical systems for the delivery of health services by the Basic Health Service Department of the MOPH with support from a not-for-profit group (Management Sciences for Health--MSH);

- Training of auxiliary nurse midwives, and support for operation of a new training school for ANMs, through a contract with the University of California at Santa Cruz.

At the beginning of the project the MOPH had in existence 95 BHCs. They were seriously understaffed, short of medicines and vaccines. In addition, drugs and vaccines which were inappropriate for BHC use were supplied to the rural centers and frequently were out-dated by the time they were received. The quality of care was poor (physical exams seldom given, lab tests infrequently made, and very little time devoted to the patient). Maternal care was practically non-existent due to the absence of female health workers. Preventative public health efforts were limited or non-existent in most areas. Theoretically each BHC was expected to provide care for 25,000 people. In fact only 1,000 to 1,500 patient visits per year were being made due to the wide dispersion of the rural populace. The maximum effective service radius of each BHC proved in practice to be only 6-10 kilometers compared to 25 kilometers to the perimeter of the typical BHC catchment area.

The project called for the development of systems to provide regular delivery of appropriate drugs to each BHC and for staffing and management systems to serve the BHCs. The program sought to meet these needs by developing structures and systems as follows:

- Operations manuals to guide all personnel;

- Frequent continuing education of BHC personnel;

- Regular management control through regional offices and/or by visits from Kabul; and

- Adequate systems to provide regular supplies of appropriate drugs.

These systems were first tried in one area and then expanded to 12 of Afghanistan's 27 provinces. It proved very difficult to maintain the same level of intensive contact for training and management for the large area as in the original experimental program. Staffing problems, support systems and political difficulties arose. In the latter realm the problem stemmed from efforts to decentralize province administration to regional centers, thus undercutting the position of the traditionally powerful provincial health officers. A solution was sought by providing mobile teams to provide follow-up training and supervision from Kabul directly to the BHC level. This system in turn broke down when rural security conditions deteriorated following the 1978 coup. Successes included the development of effective management systems at the center in Kabul, although these systems were only partially effective at lower levels. Some progress was made in training female staff for the BHC's including auxiliary nurses and auxiliary nurse midwives.

The project also called for the testing of alternative health delivery systems (AHDS). This effort reflected the observation that even well-run BHC's were reaching only a fraction of the people they were expected to cover. Achieving the full number of BHC's projected for 1985 (280 nationwide) could be expected to provide access to health care for only seven percent of rural people, due to the wide dispersion of Afghanistan's rural population. People living at distances greater than 6-10 kilometers had no access for all practical purposes. The alternative tested was to provide training for traditional birth attendants (dais) and for Village Health Workers (VHWs) selected by the village in which they were to work. These local people with limited training could provide basic health services at moderate cost, and receive payment from patients for services rendered and for drugs provided. Drug supplies were purchased from the BHC's for resale by VHWs to patients. In this way there was not a drain on the MOPH budget and such a system was much less dependent on the weak administrative system of the MOPH. Unfortunately the VHW experiment was short-lived because it was terminated by the new authorities after the 1978 coup in favor of a "physicians' assistant" (feldsher) system as favored by Soviet advisors to the MOPH.

d. Key lessons learned in the health sector

(1) Program balance

Despite a declared emphasis on support for rural health (especially targeted at infants, children and women) the traditional bias toward urban, hospital-based curative services mainly for adult males has proven very difficult to change. Traditional values place greater value on men than on women. Changing that pattern remained the continuing challenge.

(2) Implementation

- Rural (village level) health programs are most constrained by the problems of supply management and supervision of service delivery while initial training is more easily accomplished;

- Ethnic or regional differences within the country do not require separate village programs since demand for health services is widespread and uniform;

- Afghans are prepared to pay for health services rendered by village health workers (VHWs) and/or traditional health workers (primarily dais) and to purchase drugs. This can be an important means of keeping budgetary costs under control while achieving broad coverage;

- VHWs and traditional health providers can be trained to provide valuable health services at low cost. They require substantially less government support than do other alternative health providers;

- Fixed-base health care systems in rural towns or central villages (e.g. BHCs) are not effective means of reaching a large proportion of the rural populace due to the wide dispersion of Afghanistan's rural people;

- Health workers (at village or at BHC level) need incentives to encourage provision of preventive services and health education. In practice even with incentives, delivery of such services is very difficult to achieve;

(3) Political

- Decisions and programs in the health field (as in others) must follow the dominant political interest to be acceptable;

- The long-established pattern of free care and hospital-based service systems have been major impediments to achieving sound health delivery systems and appropriate budget priorities in Afghanistan. Policy dialogue by donors should give priority to seeking to mitigate such undesirable emphases.

- Protective health services and village-based water supply and sanitation programs deserve greater emphasis than in the past, both on grounds of cost-saving and for relief of human suffering.

3. Population/family planning

a. The US program 1969-79

As the GOA examined its development priorities for the Third Five Year Plan (1967-72), concern for the demographic factors influencing development increased. During the same period, donors including the US, became increasingly concerned with the issue of family planning as a means to improve family welfare and confront the high infant and maternal mortality rates which characterized all parts of Afghan society. The Government approached the issue of family planning (commonly referred to in Afghanistan as "family guidance") with considerable caution due to widely held pro-natalist views based on deep-seated cultural and religious attitudes and values. A private voluntary organization known as the Afghan Family Guidance Association (AFGA) was formed in 1968 and became operational the following year. The AFGA was dedicated to providing information and stimulating interest among Afghans in family planning. The first US supported activity of the AFGA was a Knowledge/Attitude/Practices (KAP) Survey.

AFGA became affiliated with the International Planned Parenthood Federation (IPPF), and received contraceptives and other supplies through the Ministry of Public Health from IPPF and from the US. During the seventies AFGA's network of family planning clinics expanded. It expanded out from Kabul into other urban centers. By the late seventies clinics had been established in provincial towns in every province. Contact among women in the neighboring countryside began to occur. Clinic visits by acceptors rose from 7,670 in 1969, to 78,390 in 1976. This increase was stimulated in part by intensified use outside the clinics of "family guides," both male and female, to provide contraceptives and Mother and Child Health (MCH) advice. This was a major step forward in the conservative Afghan Muslim setting but it was far short of a frontal assault on the family welfare problem. Rural areas remained essentially untouched.

While the Government was reluctant to declare an official population policy or to take the lead in family planning, the courageous and pioneering work by AFGA paved the way to increased government involvement. By the late seventies the MOPH was willing to distribute contraceptives and provide family planning advice in rural towns through its Basic Health Centers (BHCs), and through Village Health Workers and traditional birth attendants (dais) under the US-supported Basic Health Services program. US support for the training of Auxiliary Nurse Midwives (ANMs) to serve in the BHCs was also an essential element for the successful delivery of family planning. Few female health workers had previously been available to serve in the rural areas. Their presence improved women's access to the health system and made MCH and family planning services available to a small portion of the rural population.

The Government was also concerned that its development planning was hampered by the total absence of reliable demographic data. US and

other donors were likewise concerned that it was not possible to make reliable estimates of the population, determine the impact of family planning or project future patterns of population growth without a thorough demographic study. Between 1971 and 1974 a comprehensive demographic and family guidance survey was carried out covering the settled and nomadic population of the country. Under a contract with the State University of New York a team of six to eight persons, working with the Ministry of Planning and numerous other agencies, was finally able to develop a demographic profile for Afghanistan. A reasonably comprehensive picture of family planning in Afghanistan was also produced in the form of a KAP study. Although the program encountered great difficulties in the logistics and management necessary for the assembly and analysis of such a massive amount of data, it achieved some success in providing a basis for future analysis and planning. Its data on population and demographic trends was, however, shaky--some said it was suspect.

The survey included such factors as pregnancy histories, in addition to more usual census information. The results were therefore of value with respect to family planning and provided the first comprehensive population information ever available on Afghanistan. The survey determined the population in 1975 to be 16,665,000 but there has been controversy about methodology and reliability of the data obtained. Based on preliminary census data, however, the World Bank in 1978 determined the population of Afghanistan to be 14.0 million in 1976-77. The annual growth rate was estimated at 2.18 percent. According to the Bank estimate, the population was 85 percent rural and included 1.5 million nomads. A census taken in 1979 was very incomplete in coverage of the settled population and made no attempt to enumerate nomads. The results are regarded as wholly unreliable. This throws the World Bank estimate into question since it was based on partial census data.

b. Impact and sustainability

The population/family planning program was still in its infancy when US assistance was withdrawn from Afghanistan in 1979. AFGA had made significant progress in developing as an institution but operation of its program was nevertheless still heavily dependent on external technical, financial and in-kind commodity support. Very limited private funding support was available locally. AFGA received some support from the GOA in terms of use of GOA facilities and personnel, but was not likely to be able to count on such support unless outside donor assistance lent credibility to its capacity to continue. The Government itself had only entered the field of providing family planning advice and distribution of hcontraceptives after 1975 and did so without officially adopting a pro-family planning policy. The conclusion seems inevitable that the public and private programs both fell considerably short of achieving a sustainable stage when support was withdrawn.

Despite the issue of sustainability, the impact of these programs was modest but not insignificant. In such a pro-natalist setting it was a genuine breakthrough that at least a few thousand people in the cities and towns, and a few in the countryside, took the positive step of becoming contraceptive acceptors. This suggests that under the proper arrangements, especially with incentives and complementary MCH services, much more might have been accomplished in the succeeding decade.

c. Lessons learned

Key lessons from the period of AID support to population/family planning activities (1969-79) are:

- Despite the pro-natalist attitude prevalent in Afghan society, it was feasible to carry out a program to promote family planning and deliver contraceptives through both a private voluntary organization and government health facilities;

- The GOA remained reluctant to adopt an official population/family planning policy or to take a leadership role in this field, but was prepared to support and help fund programs;

- It was necessary to approach this topic with caution but urban women demonstrated a clear interest in contraception, and even rural women were interested especially if MCH services were available in conjunction with FP services;

- Family planning information and education programs should be largely oral (rather than written) in order to be effective with the overwhelmingly illiterate rural female population;

- Nurse midwives are the most suitable staff to be in charge of FP clinics while physicians are more appropriately used as consultants on special problems;

- The use of both male and female family guides for the delivery of information/education and the provision of contraceptives outside of clinics is an indispensable means of achieving wide client contact and contraceptive acceptance.

4. Women and development in Afghanistan

a. Setting

Women in Afghanistan suffer greatly from high morbidity and mortality rates. This is attributable to their low status relative

to men, their limited access to education and health services, the early age of marriage and the high fertility rate. Inadequate nutrition especially during pregnancy and lactation is also a contributing factor.

Women are greatly circumscribed in their roles in society, and have little freedom of movement as dictated by conservative Islamic tradition. It is the universal expectation that all persons in Afghan society will marry. Once married, a woman is expected to become a mother, raise children and manage the household affairs. Divorce, although comparatively rare, can have calamitous repercussions for women who can easily lose all rights to property under law for a misdemeanor. There was some relaxation for urban women with respect to purdah (veiling) after 1959 but advantage was taken only by women whose families were less conservative and only in Kabul and a few other cities. Some rural and nomadic women also are unveiled and engage in work outside the compound. For most this was a matter of necessity and denoted their low socioeconomic status.

Employment opportunities for women are restricted by tradition. In 1976 it was reported that 5.6 percent of government employees (mostly in Kabul) were women. The post of Minister of Health was occupied by a woman in several successive governments from 1965-73, but that was the exception that the proved the rule. Again after the 1978 coup the Minister of Social Affairs was a woman. Rural women, being almost entirely confined to the home, had few opportunities for income earning other than handicrafts (notably carpet making and embroidery) and were more than 95 percent illiterate even in the seventies. The minority of rural women not in purdah and not confined to the home were from poor, low status families. As soon as they achieved higher incomes they would not work in the fields or carry on other activities outside the household.

b. US programs affecting women

In view of the social and cultural constraints on women which prevailed almost without exception in rural areas throughout the period under review, the potential avenues for directly addressing and improving the role of women in development in Afghanistan were very circumscribed.

For this reason only a few US assistance programs in the fifties and sixties directly and overtly sought to strengthen women's role in and contribution to development. One vocational school specifically for women was constructed with U.S. funds and many women teachers were trained. Few facilities existed, however, to permit single women to operate as teachers in rural areas. This was a serious restriction on women teachers' options. Undoubtedly women were beneficiaries of other AID projects but mainly incidentally and indirectly up until about 1968. With the beginning of a concern for family planning, greater but still limited efforts directly in behalf of women began to occur. The initial work was undertaken through the clinics established by the

Afghan Family Guidance Association (AFGA). These were able to reach only a limited clientele in the more urbanized centers, however.

In 1972, when plans were made to develop an expanded program of basic health services in rural areas, an explicit effort was made to make those services available to women. By undertaking to train Auxiliary Nurse Midwives (ANMs) for duty in the Basic Health Centers, a specific opportunity was created for employment of women in the rural market centers where BHCs were to be set up. By recruiting women from the locality where they were to serve, the probability of their continuance in those positions was greatly increased. At the same time, the presence of women as health paraprofessionals made it feasible for women to have access to the services of the Health Centers and to be given pre-natal care and other MCH services. Later, as the way was opened through the precedent set by the AFGA family planning clinics (and despite the absence of an explicit pro-family planning policy of the MOPH), it became possible to provide family planning information, education and contraceptives at the BHCs. Still later, village health workers and dais were able to do the same. As a result, at least some rural women had access to MCH/FP advice and services. This was a far cry from the past where virtually no health services were accessible to women and absolutely no family planning had been available.

In education, even through the early seventies, only a limited number of girls had attended school, mainly due to the widely held belief that there was no need or value in educating girls. In the rural areas the proportion of girls enrolled in primary school was approximately 3 percent of the 7-12 age group. When the US undertook to finance the construction of rural primary schools in 1975, one of the conditions for reimbursement under the FAR procedure was that 18 percent (later negotiated downward to 15 percent) of the places were reserved for girls. Interestingly the government was amenable and no reimbursement was refused on the basis of non-compliance with this provision. At the same time this minimum proportion of places to be reserved for girls was hardly a revolution. Nevertheless the GOA proposed in 1977 to move substantially further to open up opportunities for girls' education at the primary level nationwide. It set a goal of reducing the ratio from the prevailing 6 males to one female (6:1) to 3:1. The target was later adjusted to 5:1 or 16.6 percent females.

A further condition for the construction of primary schools in rural areas with AID funding was that hostels be available for women teachers. These were to be constructed in association with each school. The GOA concurred and no problems were reported in carrying out this commitment.

In urban settings, and especially at higher levels, educational opportunities for girls were greater. For example, there was a special women's lycee in Kabul for the study of commerce. Nevertheless only 1.4 percent of girls of lycee age were in school in 1975. The

proportion of women students at Kabul University was 10.5 percent in 1977, and totaled about 1,000 students.

c. Lessons learned

The programs designed to impact directly and favorably on the status, opportunities and benefits to be derived for women in the development process were so few and were implemented so late that lessons to be derived are limited. A few observations may be relevant:

- Afghan contacts with Westerners through the assistance efforts of AID and other donors were not a sufficient influence to change significantly the conservative views of the great majority of Afghans on the role of women;

- The GOA was prepared to undertake actions aimed at increasing women's opportunities and access to services in the areas of education, health and family planning. The scale of the actions was limited and the duration short and late in the period covered by this review, so the experience gained is minimal. It suggests, however, that in the context of those times (and perhaps for the future) AID initiatives were feasible and if pursued over time could have made a significant impact;

- The traditional view held in Afghan society regarding the role of women as mother/homemaker, with limited access to the world outside the family compound, requires that efforts to effect change in that role be approached cautiously; and

- The experience of the Afghan Family Guidance Association suggests use of PVO's as a mechanism to effect change and benefit women. This approach allows the Government to avoid the political risks of leadership for change.

F. Private voluntary organizations--activities

1. Setting

In the socio-cultural context of Afghanistan, where associations and loyalties are highly localized, truly private voluntary organizations on a national scale are comparatively rare, though not unknown. Voluntary cooperation at a local level, however, has a long tradition and an important role in rural Afghan society. Rural works with a very localized sphere of beneficiaries are usually built and maintained by voluntary labor. Examples would be the construction of a diversion structure in a stream and associated ditch for delivery of irrigation water, or building a bridge benefiting one village. Larger works benefiting several villages are usually not built by voluntary collaboration but by paid labor. Following are examples which prove the rule, and show that there are infrequent instances of voluntary activity at the national level:

- The Afghan Family Guidance Association (AFGA) was founded in 1968 to provide family planning information and services. It was the local affiliate of International Planned Parent Federation (IPPF). It is notable, and perhaps significant, that it had very little impact in rural areas; and

- The Afghan Women's Organization (AWO) was founded in 1946 under the auspices of the Ministry of Education. Its goal was "...to further extend the women's movement by increasing the participation of Afghan women in the progress and modernization of the Afghan community ...through the increase in training and education of women...and the improvement of their social and political status." The AWO published a magazine called Mermon (woman) which dealt with women's interests and at times proclaimed women's rights. It was circulated in Kabul and other cities, but its influence was limited since so few women were literate.

2. Programs of foreign PVO's in Afghanistan

During the period under review, at least eight PVOs based in the US or affiliated with US entities had programs in Afghanistan. Their programs generally were not large in financial terms. The Asia Foundation, was an exception and had a large operation. It was among the first PVO's to operate in Afghanistan. Its program began in 1954. Up until it was publicly identified in a 1967 article in Ramparts magazine as having been in some measure, at least, affiliated with the Central Intelligence Agency (CIA), its programs were quite extensive. The disclosure had notable but fairly temporary domestic political repercussions in Afghanistan. After it was re-organized and disavowed all CIA connections, its programs continued on a more modest scale.

Available data for 1974 indicate that the eight PVOs operating at that time spent approximately $1 million on programs in Afghanistan. Even in 1974 the Asia Foundation had the most diverse program, operating in six fields (communications, community development, education, agriculture, public administration and women's affairs). Despite the large number of program areas, the Asia Foundation expended only $171,000 in its fiscal year ending in 1974. CARE-Medico, on the other hand, which had the largest PVO program in operation in 1974 (expenditures of $332,000 in its FY ending June 30, 1974), operated only in the medical and public health field. Most PVO programs operated only in one or two fields, or in closely related areas, such as the health, nutrition and family planning activities operated by Medical Assistance Programs (MAP).

The following is a brief sketch of PVOs operating in Afghanistan in 1974, including information for other years as available:

- Asia Foundation--program initiated 1954. Personnel: 2 U.S., 8 local. Activities under way in 1974 when total budget was $171,000 included:

  -- community development: grants in support of the National Theater, the Women's Institute and the Afghan Scouting Association;

  -- education: grants for Kabul U. faculty to study abroad and to the Research Center for local research. Grants to the Ministry for upgrading guidance and counseling programs and to libraries and individuals of English language textbooks. Services of a library consultant for a short-term assignment;

  -- agriculture: grants to improve crop quality, natural products and livestock for export;

  -- public administration: translation from Arabic and printing of legal texts for use in the courts country-wide.

- CARE-Medico--program initiated 1960. Personnel: 12 US and Canadian and short-term volunteers, 13 local. Activities were budgeted in 1974 at $332,322, and covered:

  -- public health: training for doctors, nurses and paramedical support personnel at Avicenna hospital. Program continued into 1979 at new Jumhuritat Hospital in Kabul providing residency training for doctors who were then committed to two years at BHCs in rural towns. Also trained nurses in a Post-Basic School of Nursing. Phased out in fall of 1979 as the political situation deteriorated in Afghanistan.

  Other CARE activities included:

  -- School feeding for 2 brief periods in the sixties. This activity was turned over to UNICEF;

  -- Self-help project equipment in the sixties.

- Franklin Book Program--Initiated in 1965. Personnel: 5 local. Budget for FY ending June 30, 1974: $18,000 (previous year $329,789). Program covered:

  -- education: administration of Ministry of Education literacy development and supplementary books program. The Franklin Book Program had formerly managed the MOE textbooks printing program funded by USAID.

- Laubach Literacy Inc.--Initiated in 1969. Personnel: local teacher/writer. Budget for FY ending May 31, 1974: $3,350. Program covered:
  - -- education: Development of easy-to-read post-literacy materials to accompany a Dari language primer developed in 1971.

- Medical Assistance Programs Inc.--Initiated in 1966. Budget for FY ending September 30, 1974: $91,887 (prior year $449,559). Program phased out in 1975. Program activities in the areas of health, nutrition and family planning included:

  - -- rural health visits via mobile van to provide medical services and identify disease patterns;

  - -- in-depth health/nutrition study in the Hazarajat region (1971-74);

  - -- rural hospital in the Hazarajat;

  - -- AID-supported MCH/FP pilot program using paramedical personnel in villages for outreach from MOPH health centers.

- Medical Mission Sisters--Initiated in 1970. Personnel: 2 U.S., 2 Indian plus local staff. Financial data not available. Program activities in health included:

  - -- Staffing of a 127-bed general hospital in Jalalabad;

  - -- Operating nursing school and an auxiliary nurse training program.

- Mennonite Central Committee--Initiated 1970. Budget for year ending November 30, 1974: $11,876. Personnel 3 (U.S. and Canada). Program activities provided support to another PVO, the National Organization for Ophthalmic Rehabilitation (NOOR) in Herat.

- National Organization for Ophthalmic Rehabilitation (NOOR)

  - -- health: Volunteer eye surgeons from abroad worked with local institutions and PVO groups to provide ophthalmological services (especially large numbers of cataract operations) for rural Afghans. (No information available on the staff and budget of NOOR).

- o World Mission Prayer League--Initiated 1966. Budget for 1974: $1,500.

  -- health: Assisted and supported operation of an eye hospital.

3. Impact and sustainability

PVO's performed a range of valuable services in Afghanistan, of which the most widespread and important were in the health field. The work done by the Medical Assistance Program (MAP) in exploring the nature of the health and nutrition needs of rural people in Afghanistan was extremely valuable as a service, but even more significant in its role as a pilot activity. MAP was highly respected and had especially close working relations with the Ministry of Public Health. The model worked out by MAP for using village health workers to achieve outreach from the Basic Health Centers was adopted and extended by the MOPH with AID contractor support.

The work of CARE-Medico over the period from 1960 to 1979 was also of great significance for the development of health services. CARE-Medico worked in Kabul supplying long and short-term volunteer medical personnel. Later it had a strong impact in providing the only residency program for doctors, and using this to get young graduates to do duty in the rural areas following their residency. With the high concentration of doctors in the Kabul area this was a signal achievement. Similarly, the training of nurses and auxiliary nurses was a great contribution. Training for the latter was especially important, in view of the scarcity of trained paraprofessional personnel. There was some difficulty in gaining full acceptance for locally trained doctors, as it was generally believed that only doctors trained abroad would be adequately prepared. Acceptance of CARE-trained medical doctors for teaching was even more difficult to obtain.

It must be observed that the support extended by IPPF to the Afghan Family Guidance Association was also a very important pioneering effort. Without AFGA, the GOA would probably have been unwilling to become involved in family planning. By providing a lead, however, it was possible to get the GOA to move into the family planning field, and by the late seventies even begin to provide FP services through government clinics.

An area in which expatriate PVO's were weak was in establishing a local counterpart organization. Only IPPF took this approach in supporting AFGA as a local affiliate. A major reason for this weakness may be the scarcity of local financial resources and leadership.

4. Lessons learned

- PVOs which offered services the government was unwilling or unable to provide were generally welcome in Afghanistan;

- Programs worked best when they started in a low key mode, as with CARE and MAP, and expanded when they became known to, and had gained the confidence of, the GOA;

- Despite the sensitivity of the GOA and of Afghan society to Christian proselytizing activities, Christian-based organizations had no great difficulty in being accepted as providers of needed services (health and manpower training especially), as long as they were not overtly engaged in efforts to make religious conversions.

ANNEX A

Afghanistan Program Evaluation Scope of Work

ANNEX A

AFGHANISTAN PROGRAM EVALUATION
SCOPE OF WORK

The contractor shall review, assess, and record the negotiation, design, and implementation of the program of US economic assistance to Afghanistan from 1950 to 1979. Priority should be given to assessing the impact of AID's assistance, identifying where the program was most and least successful and, to the extent possible where these impacts produced sustainable development. The final report shall include at a minimum a discussion and analysis of the following topics:

A. Briefly discuss the origins and evolution of US assistance to Afghanistan during the fifties and sixties. The synthesis of information produced by PPC/CDIE and the team should serve as a general overview of this earlier period.

B. Describe the Afghan program in the late sixties and seventies. The specific time period to be emphasized should be determined after an initial review. Discuss the political context (including US foreign policy objectives) in which the program took place including how US foreign policy objectives influenced the nature and magnitude of the US assistance program. Describe the rationale for the nature and composition of the program as its developed, including conscious decisions not to become involved in certain functional areas or geographic regions.

C. Briefly put the US Assistance program into the context of total foreign assistance to Afghanistan, relying on documents available in the US (World Bank, UN, AID, IMF, ADB). Describe the donor's use of intermediary organizations. The roles, acceptability, and achievements of expatriate PVOs is of interest whether public or private funding was involved.

D. Analyze by sector the design, implementation, and impact of AID funded activities undertaken during the review period and relate these activities to the overall economic development of Afghanistan. Sectors covered shall include agriculture and rural development, energy and environment, health and population, human resources and training, and area development. The role of the Afghan private sector in these activities should be examined and assessed. Specific issues covered within each sector shall also include institution-building as well as technology transfer and policy dialogue. Within each sector, include a review of sustainability issues (including economic viability and recurrent costs issues) and an assessment of the principle beneficiaries of key interventions, particularly low income groups.

E. Describe and analyze the operation of the PL-480 Title I programs, including self-help measures and local currency utilization ascpects of that program.

F. Describe and analyze operation of PL-480 Title II programs, including their objectives, coverage and impact.

G. Describe individual mission initiatives of the non-project or program type, including the importance of such programs to policy dialogue pertaining to macroeconomic policies and foreign policy objectives.

H. Examine other program components/aspects including, at a minimum, women in development, narcotics, donor coordination, and the social impact of the program and its components. Briefly discuss in this section centrally-funded activities carried out in Afghanistan.

I. Discuss past management and staffing requirements of the program in light of the size and content of the portfolio. Review extent of reliance on the effectiveness of local capabilities, including both the public and private sectors, on the design and implementation of projects and programs. Identify activities which were especially staff intensive and assess possible alternative strategies which are less staff and management intensive.

J. Based on the above analysis, review main features of the overall program, including an assessment of major strengths and weaknesses, and successes and failures, and lessons learned. The latter are the principal objectives of the entire effort.

K. Working closely with PPC/CDIE/DI, locate documentation in the US which might be of use in the start up of a new program. This shall include, but not be limited to, capital projects, e.g., Helmand Valley programs, where design documents may be useful in rehabilitation programs. The soil conservation service was the last contractor in the Helmand. Land Reclamation was there some years before as was Morrison-Knudsen.

An Afghanistan reference library shall be a by-product of the study. Useful USAID/Afghanistan and other relevant documents shall be provided to the O/AID/REP/ at the conclusion of the study, plus an Afghanistan-specific information management handbook describing how to obtain more detailed materials, e.g. Engineering designs, if/when needed.

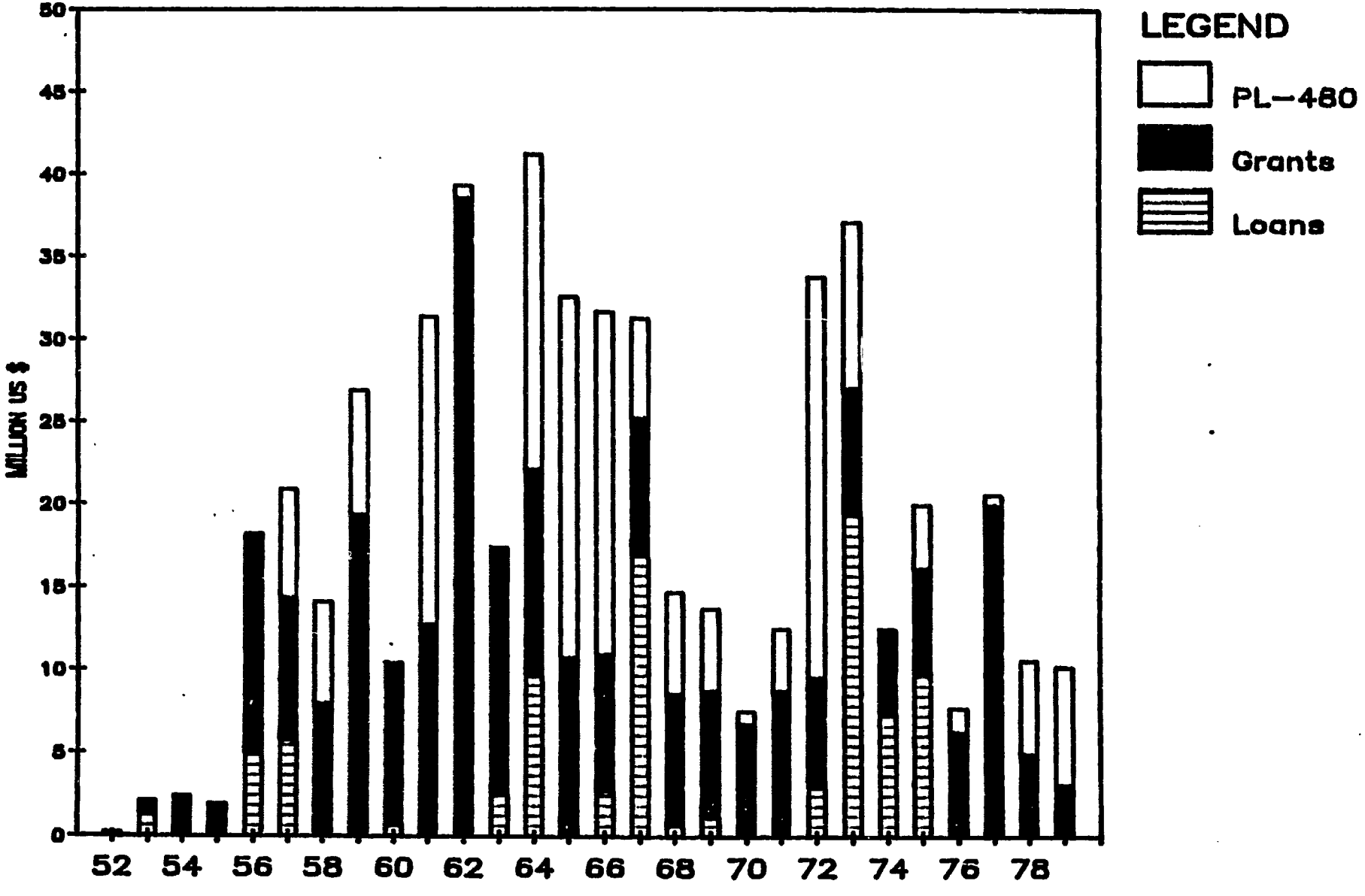
ANNEX D

Economic and Social Data

COMPONENTS OF US ECONOMIC ASSISTANCE TO AFGHANISTAN

FY 1952–1979

Obligations and Commitments



#	PROJECT TITLE	YEARS	*EXPENDITURES ($ 000)
C.	EDUCATION AND HUMAN RESOURCE DEVELOPMENT		
3060091	Elementary & Secondary Education	52-79	19449
3060019	Education	55-58	438
3060030	Kabul University Administration	56-64	245
3060092	Agriculture Education	56-77	6162
3060093	Technical Education	56-77	13084
3060044	Education Facilities	57-68	4519
3060047	Nuclear Science & Engineering	57-60	15
3060049	Architecture & Engineering Services	57-65	442
3060059	Communication Training	60-61	9
3060062	Ministry of Education Audio-Visual Center	60-65	56
3060081	National Film Library	61-72	584
3060013	Kabul University Administration Improvement	66-75	1616
3060105	Technical Support Education	67-75	632
3060121	Higher Education, Kabul University	73-78	2944
3060142	Rural Primary Schools Phase I	75-80	1087
3060150	Rural Primary Schools Phase II	78-78	41
3060155	Development Related Research	78-80	1580
3060157	Development Support Training	78-82	268
		Total	53171

*Amounts exclude US-owned and counterpart Afghanis and US-owned Pakistani rupees.

Page Not Available

#	PROJECT TITLE	YEARS	*EXPENDITURES ($ 000)
F. HELMAND VALLEY			
3060090	Helmand Ardhandab Valley Development	54-77	20185
3060012	National Rural Development	55-60	240
3060022	Housing and Rural Development	56-59	22
3060026	Education Training Center	56-59	132
3060031	Village Industrial Development	56-59	61
3060089	Lashkar Gah Housing	63-67	113
3060106	Technical Support	67-75	1086
3060102	HAVA/HACU Equipment	68-76	3887
3060145	Helmand Valley Soil & Water Survey	75-77	151
3060146	Central Helmand Valley Drain Phase I	75-80	1648
3060149	Central Helmand Valley Drain Phase II	77-81	6012
		Total	33537
G. PUBLIC ADMINISTRATION & PLANNING			
3060042	Civil Police Administration	55-63	469
3060015	Public Administration Banking	56-57	7
3060024	Housing Public Administration	56-61	88
3060029	Financial Administration Improvement	56-77	7452
3060045	National Public Administration	56-62	81
3060080	Economic Planning	61-74	2958
3060108	Technical Support Government Management	67-75	302
3060123	National Development Training	72-80	2754
3060124	Statistical Information System Development	72-77	1136
		Total	15247

*Amounts exclude US-owned and counterpart Afghanis and US-owned Pakistani rupees.

Components of US Economic Assistance
FY 1952-1979
Obligations and Commitments

	Loans	Grants	PL-480	Total
		($ US Millions)		
1952	0	.3	0	.3
1953	1.4	.8	0	2.2
1954	0	2.5	0	2.5
1955	0	2.0	0	2.0
1956	5.0	13.3	0	18.3
1957	5.8	8.6	6.6	21.0
1958	0	8.0	6.2	14.2
1959	0	19.4	7.6	27.0
1960	.7	9.7	.1	10.5
1961	0	12.8	18.7	31.5
1962	0	38.6	.8	39.4
1963	2.6	14.8	.1	17.5
1964	9.7	12.5	19.1	41.3
1965	.3	10.5	21.9	22.7
1966	2.8	8.2	20.8	31.8
1967	17.0	8.3	6.1	31.4
1968	.7	7.9	6.2	14.8
1969	1.2	7.6	5.0	13.8
1970	0	6.8	.8	7.6
1971	0	8.8	3.8	12.6
1972	3.0	6.6	24.3	33.9
1973	19.5	7.6	10.1	37.2
1974	7.5	5.0	.1	12.6
1975	10.0	6.2	3.9	20.1
1976	0	6.3	1.5	7.8
1977	0	20.0	.7	20.7
1978	0	5.0	5.7	10.7
1979	0	3.1	7.2	10.3
Total:	87.2	261.2	177.3	525.7*

Source: U.S. Overseas Loans and Grants, Series of Yearly Data, Volume I, Near East and South Asia, Obligations and Loan Authorizations, FY 1946 - FY 1987, Agency for International Development.

* Excludes Export/Import Bank Loans

Afghanistan

GENERAL ECONOMIC AND SOCIAL DATA

POPULATION			
Total (mid-1976; millions)			15.0
Annual Growth Rate (percent)			2.3%
Urbanization	1960	1975	
Percent in Urban Areas	8%	12%	
Labor Force in Agriculture (percent)			62%
HEALTH			
Life Expectancy (years)			40
Infant Deaths per 1,000 Live Births			173
People per Doctor			26,000
EDUCATION			
Primary and Secondary Students	1960	1973	
a. Number (in thousands)	190	792	
b. As Percent 5-19 Age Group	3%	12%	
Literacy Rate (percent)			8%
PER CAPITA GROSS NATIONAL PRODUCT			
1974 (dollars)[1]			110
Average 1965-74 Annual Growth Rate (percent)[2]			1.1%
AGRICULTURAL PRODUCTION—Average 1971-76 Annual Growth Rate			
Total Production (percent)			3.9%
Per Capita Production (percent)			1.5%

INTERNATIONAL COMMODITY TRADE ($ millions)	1974	1975 E
Exports (f.o.b.)	210	240
Imports (c.i.f.)	-276	-300
Trade Balance	-66	-30
Main Exports: Fruit, nuts and natural gas.		

OFFICIAL INTERNATIONAL RESERVES	1974	1975	1976
(Gross Holdings; End of Period; $ millions)	68	115	132(Oct)

CENTRAL GOVERNMENT FINANCES ($ millions)[3]	1974	1975
Total Expenditures	192	251
Defense Expenditures		
a. As % of Total Expenditures	18.7%	18.1%
b. As % of GNP	1.6%	1.8%
Domestic Revenues	228	269

FY 1975 U.S. ECONOMIC ASSISTANCE	
a. As % of Country Central Government Expenditures	8%
b. As % of Country Imports of Goods & Services	8%
SERVICE PAYMENTS ON EXTERNAL PUBLIC DEBT as % of Goods and Non-Factor Services (1974)	17.9%

NOTE: Where year is not stated, data are latest information available.

[1] Estimate in IBRD 1976 Annual Report. Reflects a new computation based on GNP in average 1973-75 domestic prices converted to U.S. dollars at average 1973-75 exchange rates and adjusted by the ratio of 1974 U.S. prices to average 1973-75 U.S. prices.

[2] Estimate in the IBRD 1976 World Atlas.

[3] Converted to U.S. dollars at 1975 exchange rate. Data are in current prices and reflect the impact of inflation.

E - Estimate.

Asia and Pacific

	DEMOGRAPHIC						POLITICO-ECONOMIC					FOOD SUPPLY	
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Crisis countries		Population 1980	Natural increase 1978	Population economically active 1979	Population in agriculture 1979	Child mortality 1977		PQLI	GNP per person 1979	GNP growth 1970–78	Agricultural GDP 1977	Agricultural import ratio 1977–79	Import content of cereal use 1977–79	Cereal use per person 1977–79
			millions	%/year	%	%	per thou..		index	US$	%/year	%	%	%	kg/year
1. Turkey			46	2.5	42	56	10		60	1330	4.1	28	7	E	558
2. Cyprus			0.6	1.1	42	35	2		85	2940	1.4	13	36	70	657
3. Syria			8.6	3.2	26	48	14		57	1070	6.0	20	32	19	299
4. Lebanon			3.2	2.5	26	11	6		72	—	—	—	—	91	209
5. Jordan			3.2	3.3	24	27	16		56	1180	7.0	—	107	90	181
6. Iraq			13	3.4	25	41	17		45	2410	7.7	—	7	47	306
7. Kuwait			1.3	3.3	27	2	2		77	17270	0.6	†	5	—	—
8. Saudi Arabia			8.2	3.0	26	61	28		29	7370	4.9	1	4	84	223
9. Yemen AR		✓	5.6	2.3	28	75	31		27	420	—	—	nmf	30	207
10. Yemen PDR		✓	1.9	2.7	26	59	31		32	500	12.7	—	79*	61	147
11. Oman			0.9	3.0	26	62	29		33	2970	3.7	3	5	96	169
12. U.A. Emirates			0.8	3.0	—	—	29		35	15590	-5.6	—	4	—	—
13. Qatar			0.2	3.0	—	—	29		32	16590	-2.5	—	3	—	—
14. Bahrain			0.4	3.6	—	—	—		61	5460	-1.4	—	7	—	—
15. Iran			38	3.0	28	39	14		52	—	—	9	9	25	293
16. Afghanistan		✓	16	2.7	34	78	27		14	170	2.7	—	25	2	237
17. Pakistan		✓	86	2.8	27	54	17		38	270	1.5	33	40	2	205
18. India		✓	676	1.9	38	64	18		43	190	1.6	40	20	E	215
19. Nepal		✓	14	2.4	46	93	23		29	130	0.3	62	—	E	269
20. Bhutan		✓	1.3	2.2	48	94	—		—	80	-0.2	—	—	E	315
21. Bangladesh		✓	90	2.6	34	84	23		32	100	0.2	55	57	6	247
22. Sri Lanka		✓	15	2.2	35	54	2		81	230	1.9	40	34	39	213
23. Maldives		✓	0.1	2.7	—	—	—		—	200	-2.1	—	—	—	—
24. Burma		✓	34	2.4	40	52	15		53	160	1.7	48	9	E	300
25. Thailand			47	2.3	45	76	6		75	590	4.5	28	9	E	315
26. Laos		✓	3.7	2.4	48	74	27		28	—	—	—	—	10	270
27. Vietnam			53	2.3	46	71	6		59	—	—	—	—	13	256
28. Kampuchea		✓	6.0	1.8	39	74	19		36	—	—	—	—	E	162
29. Malaysia			14	2.5	34	49	3		73	1320	4.8	29	11	41	250
30. Indonesia		✓	144	2.0	34	60	19		55	380	5.3	31	10	9	224
31. Brunei			0.2	2.4	—	—	—		77	10680	4.9	—	2	74	153
32. Philippines		✓	48	2.4	35	47	7		72	600	3.7	28	11	7	235
33. Taiwan			18	2.0	—	—	1		87	—	—	12	—	—	—
34. Korea Rep			38	1.6	38	40	5		83	1500	8.1	24	17	30	368
35. Korea DPR			18	2.4	45	47	5		75	1130	3.8	—	—	E	455
36. China PR			975	1.2	47	61	4		71	—	—	—	—	4	305
37. Papua New Guinea			3.2	2.5	50	83	19		43	650	0.2	33	16	95	40
38. Guam (USA)			0.1	1.2	—	—	—		—	7830	5.2	—	—	—	—
39. *Pacific Is.* (USA)			0.1	3.4	—	—	—		—	1340	1.5	—	—	—	—
40. Solomon Islands			0.2	3.1	—	—	—		—	—	—	—	16	48	69
41. *New Hebrides* (Fr/Br)			0.1	2.7	—	—	—		—	—	—	—	32*	87	76
42. *New Caledonia* (Fr)			0.1	3.3	—	—	—		—	5620	-4.9	—	18	95	128
43. Fiji			0.6	2.3	33	41	1		79	1690	3.1	25	31	72	164
44. Tonga			0.1	1.9	—	—	—		—	460	1.2	—	112	—	—
45. *American Samoa*			30*	2.0	—	—	—		—	8020	7.0	—	10*	—	—
46. Western Samoa		✓	0.2	3.0	—	—	2		84	—	—	—	74	—	—
47. Kiribati			0.1	—	—	—	—		—	—	—	—	—	—	—
48. *French Polynesia*			0.1	3.3	—	—	—		—	6350	2.8	—	242	—	—
Median for region			3.5	2.5	34	57	15		56	1180	2.7	28	16	30	235
Median for developing nations			3.5	2.6	34	57	17		51	670	1.7	28	16	19	187

Dash = no data. nmf = no meaningful figure.
* thousands. † less than 0.5. †† less than 0.05. ° avg 1977 and 1978. ◦ 1977.
b = barley, m = maize, r = rice, s = sorghum & millet, w = wheat E = net exporter

	AGRICULTURAL PRODUCTION							AGRICULTURAL INPUTS					
	14	15	16	17	18	19	20	21	22	23	24	25	
	Major cereal crops 1977–79		Cereal output 1977–79	Cereal area 1977–79	Cereal yield 1977–79	Change in cereal output 1969–71 to 1977–79	Change in cereal area 1969–71 to 1977–79	Change in cereal yield 1969–71 to 1977–79	Economic land in crops 1978	Cropped land irrigated 1978	Cropped land per person 1978	Fertilizer use 1978	Tractor density 1978
			million tons	million ha.	kg/ha	%/year	%/year	%/year	%	%	ha.	kg/ha	per thou.ha
1. Turkey	w,b		25	14	1800	4.1	0.2	3.8	37	7	0.7	52	13
2. Cyprus	b,w		0.1	80*	1500	-4.0	-7.4	4.0	62	22	0.7	44	24
3. Syria	w,b		2.0	2.6	800	7.3	4.5	2.6	39	9	0.7	18	4.2
4. Lebanon	w,b		0.1	0.1	1000	1.4	-0.2	1.4	80	24	0.1	91	8.6
5. Jordan	w,b		0.1	0.2	300	-12.1	-2.7	-10.1	86	6	0.5	6	3.1
6. Iraq	w,b		2.0	2.2	900	-0.4	1.8	-2.1	80	32	0.4	11	4.0
7. Kuwait	—		—	—	2000	—	—	0.1	1	100	††	100	30
8. Saudi Arabia	s,w		0.3	0.3	1000	-5.1	-2.4	-2.3	1	36	0.1	13	0.9
9. Yemen AR	s,b,w,m		0.8	1.1	800	-3.1	-3.5	0.5	15	15	0.3	4	1.1
10. Yemen PDR	s,w,m		0.1	0.1	1700	2.4	3.3	-0.9	2	25	0.1	5	4.7
11. Oman	w		6*	4*	1500	5.2	3.7	2.6	3	—	††	8	2.8
12. U.A. Emirates	—		—	—	nmf	—	—	7.0	8	42	††	13	—
13. Qatar	—		—	—	—	—	—	—	4	—	††	207	—
14. Bahrain	—		—	—	—	—	—	—	33	60	††	22	—
15. Iran	w,b,r		7.8	6.6	1200	3.2	-1.4	4.6	20	37	0.4	18	3.4
16. Afghanistan	w,m,b,r		4.1	3.4	1200	1.7	0.8	0.9	13	32	0.5	9	0.1
17. Pakistan	w,r,m,s		15	10	1500	3.6	0.9	2.6	72	70	0.3	44	2.1
18. India	r,w,s,m		137	103	1300	2.6	0.3	2.3	68	21	0.3	27	1.7
19. Nepal	r,m,w,s		3.7	2.2	1700	0.8	1.4	-0.6	27	9	0.2	10	0.2
20. Bhutan	r,w,m		0.4	0.3	1300	2.1	0.9	1.1	8	—	0.2	†	—
21. Bangladesh	r		20	10	1900	2.1	0.3	1.8	76	16	0.1	41	0.4
22. Sri Lanka	r		1.8	0.9	2000	2.6	4.8	-2.1	43	25	0.2	63	8.7
23. Maldives	—		—	—	2000	—	—	-2.3	60	—	††	—	—
24. Burma	r		10	5.3	1900	2.6	0.4	2.2	24	10	0.3	9	0.8
25. Thailand	r,m		18	9.7	1900	2.2	2.9	-0.7	45	15	0.4	17	1.9
26. Laos	r		0.9	0.7	1300	—	—	-0.4	5	9	0.2	—	0.5
27. Vietnam	r,m		11	5.8	1900	1.1	1.4	-0.2	25	25	0.1	77	4.1
28. Kampuchea	r		1.5	1.5	1000	-8.8	-4.8	-4.3	18	3	0.4	—	0.4
29. Malaysia	r		1.9	0.7	2700	1.3	-0.2	1.5	23	5	0.5	57	1.2
30. Indonesia	r,m		29	11	2500	3.5	0.7	2.8	11	32	0.1	45	0.7
31. Brunei	r		7*	3*	2300	1.9	0	3.1	3	—	0.1	—	1.5
32. Philippines	r,m		10	6.9	1500	4.5	2.8	1.7	37	14	0.2	39	1.9
33. Taiwan	—		—	—	—	—	—	—	—	—	—	—	—
34. Korea Rep	r,b		9.6	1.8	5300	3.1	-2.0	5.3	25	51	0.1	392	0.7
35. Korea DPR	r,m,s,b		8.1	2.1	3800	5.6	3.0	2.5	20	45	0.1	345	13
36. China PR	r,w,b,m		272	133	2100	3.3	1.8	1.5	23	48	0.1	94	5.6
37. Papua New Guinea	m,r		6*	3*	1800	9.8	17.6	-2.6	1	—	0.1	27	3.2
38. Guam (USA)	—		—	—	1500	—	—	3.6	40	—	—	—	6.7
39. Pacific Is. (USA)	—		—	—	1100	—	—	-0.2	48	—	—	—	0.8
40. Solomon Islands	r		7*	2*	3000	17.6	13.0	3.8	2	—	0.3	—	—
41. New Hebrides (Fr/Br)	m		1*	1*	1000	0	—	-9.4	70	—	0.9	—	0.6
42. New Caledonia (Fr)	m		1*	1*	1000	0	0	-8.6	1	—	0.1	50	63
43. Fiji	r,m		30*	10*	2000	2.2	1.9	0.2	16	†	0.4	51	6.5
44. Tonga	—		—	—	—	—	—	—	82	—	0.6	—	1.5
45. American Samoa	—		—	—	—	—	—	—	44	—	—	—	3.8
46. Western Samoa	—		—	—	—	—	—	—	47	—	0.6	1	0.3
47. Kiribati	—		—	—	—	—	—	—	—	—	—	—	—
48. French Polynesia	—		—	—	—	—	—	—	36	—	0.5	8	2.7
Median for region			1.9	1.5	1500	2.2	0.8	1.2	25	24	0.2	27	2.4
Median for developing nations			0.6	0.7	1300	2.4	1.0	0.5	20	6	0.3	18	2.6

Source: Agricultural Development Indicators, International Agricultural Development Service, New York, NY, 1981.

See following: "The Indicators Defined"

The Indicators Defined

Sources

Crisis Countries
LDC—*United Nations General Assembly Resolution 2768* [Session XXVI]. 1971. New York: United Nations, 1971.
MSA—United Nations. *Official Records of the General Assembly.* Thirty-First Session, Supplement 21. New York: United Nations, 1976.
FPC—United Nations World Food Council. *Progress Toward Increasing Food Production in Developing Countries: Report by the Executive Director.* WFC/36. March 25, 1977. Annex 1.
PFDC—Consultative Group on Food Production and Investment. Proceedings of Third Meeting: September 22–24, 1976. *Document D: Further Analysis of Resource Flows in Agriculture.* FPI /76/2–5. Manila: CGFPI, July 2, 1976. mimeographed.

1. Crisis Countries

Various organizations have established criteria for categorizing nations that have a high degree of economic or nutritional vulnerability. A check mark (✓) for this indicator means that the country is included on one or more of the following lists:

- The UN Economic and Social Council's "Least Developed Countries" (LLDC), which is based per capita GDP, industrialization, and literacy.
- The UN's "Most Seriously Affected" (MSA) countries, which is based on per capita income and balance-of-payments deficit.
- The World Food Council's "Food Priority Countries" (FPC), which is based on per capita income, projected cereal deficits, proportion of population undernourished, rate of increase in food output, and potential for accelerating food output.
- The Consultative Group on Food Production and Investment's "Priority Food-Deficit Countries" (PFDC), which is based on projected cereal deficits and undernutrition.

The countries on each list are shown inside the front cover.

2. Population

Population (in millions) for 1980 is taken from the *1980 World Population Data Sheet* or the *World Bank Atlas.*

3. Rate of natural increase

Rate of natural increase is calculated by the Population Reference Bureau as the birth rate minus the death rate, expressed as a percentage. Data is mostly for 1977–78. For countries or territories not listed in the *1980 World Population Data Sheet*, 1970–78 annual population growth from the *World Bank Atlas* is given.

4. Population economically active

Percentage of population economically active is calculated as the economically active population divided by the total population in 1979. FAO defines "economically active population" as all persons engaged in an economic activity—employers, own-account workers, salaried employees, or unpaid workers assisting in the operation of a family farm or business.

5. Population in agriculture

Percentage of population in agriculture is calculated as total population in agriculture divided by the total population in 1979. FAO defines "agricultural population" as all persons who depend on agriculture for their livelihood. This comprises persons actively engaged in agriculture as well as their nonworking dependents.

6. Child mortality

Mortality between the ages of 1 year and 4 years is calculated as the average of male and female mortality rates per 1000 population (aged 1 to 4 years). Data are estimates for 1977. This statistic is considered by many to be the best single measure of nutritional level in a country.

7. PQLI

The physical quality of life index is calculated by the Overseas Development Council and is based on infant mortality, life expectancy at age one, and degree of literacy. It is intended to be a non-income measure of the well-being of the population.

8. GNP per person

Gross national product per person in U.S. dollars for 1979 is taken from the *World Bank Atlas*. Information for centrally planned economies is fragmentary and often tentative. In the absence of market conditions, internal cost and price relationships in centrally planned economies differ substantially from those in other countries having similar per capita GNP levels. Therefore the data for these countries should be used cautiously.

9. GNP growth

Annual percentage growth of gross national product for 1970–78 is taken from the *World Bank Atlas*.

10. Agricultural gross domestic product

The contribution of agricultural sector to the gross domestic product, for 1977, expressed as a percentage, is taken from *World Tables*.

11. Agricultural import ratio

The ratio of agricultural imports (which include nonedible commodities and feedstuffs) to total exports, is expressed as a percentage, for 1977–79.

Sources

Population

Population Reference Bureau. *1980 World Population Data Sheet*. Washington, D.C.: 1980.

World Bank. *1980 World Bank Atlas: Population, Per Capita Product, and Growth Rates*. Washington, D.C.: 1980.

FAO. *Production Yearbook 1979*. Vol. 30. Rome: 1978.

Child Mortality

World Bank. *World Tables: The Second Edition*. Washington, D.C.: 1980.

PQLI

John W. Sewell. *The United States and World Development: Agenda 1980*. New York: Praeger. 1980.

GNP

World Bank. *1980 World Bank Atlas: Population, Per Capita Product, and Growth Rates*. Washington, D.C.: 1980.

Agricultural GDP

World Bank. *World Tables: The Second Edition*. Washington, D.C.: 1980.

Trade

United Nations. *Monthly Bulletin of Statistics*. March 1981.

FAO. *Trade Yearbook 1979*. Vol. 33. Rome: 1980.

FAO. *Production Yearbook 1979*. Vol. 33. Rome: 1980.

Sources

Data on imports is taken from the FAO *Trade Yearbook* and data on total exports from the UN *Monthly Bulletin of Statistics*.

12. Import content in cereal use

Cereal imports as a percentage of cereal use is calculated as net imports divided by production plus net imports. Data are for 1977–79 (avg).

Cereal use

FAO. *Production Yearbook 1979*. Vol. 33. Rome: 1980

FAO. *Trade Yearbook 1979*. Vol. 33. Rome: 1980.

Population Reference Bureau. *1978 World Population Data Sheet*. Washington, D.C.: 1978.

13. Cereal use per person

Cereal use (disappearance) in kilograms per person per year is calculated as average annual production plus imports minus exports, during 1977–79, divided by the population in 1978. In certain countries a significant amount of cereals may be fed to farm animals. In some countries low cereal use reflects the importance of other staples such as roots and tubers.

Cereals

FAO. *Production Yearbook 1979*. Vol. 33. Rome:3 1980.

14. Major cereal crops

Cereal crops that occupy more than 5 percent of the total area in cereals during 1977–79 are listed in order of importance (up to a maximum of four crops).

15. Cereal output

Average annual output of all cereals during 1977–79, is expressed in millions of metric tons.

16. Cereal area

Average annual area in all cereals during 1977–79, is expressed in millions of hectares.

17. Cereal yield

Average annual yield of all cereals during 1977–79, is expressed in kilograms per hectare.

18. Annual change: Cereal output

Compound annual growth in cereal output is calculated over an 8-year span from the midpoint of 1969–71 (avg) through the midpoint of 1977–79 (avg).

19. Annual change: Cereal area

Compound annual growth in cereal area is calculated over an 8-year span from the midpoint of 1969–71 (avg) through the midpoint of 1977–79 (avg).

20. Annual change: Cereal yield

Compound annual growth in cereal yield is calculated over an 8-year span from the midpoint of 1969–71 (avg) through the midpoint of 1977–79 (avg).

Land

FAO. *Production Yearbook 1979*. Vol. 33. Rome: 1980.

Population Reference Bureau. *1978 Population Data Sheet*. Washington, D.C.: 1978.

21. Economic land in crops

No fully satisfactory measure of the proportion of land potentially usable for crop and animal production actually in production is available for each country. Yet this is important information for determining the potential for future development. The indicator *Economic land in crops*, is an attempt to construct a first approximation of this. *Economic land* is the sum of cropped land plus permanent meadows and pastures, forests, and woodlands. *Cropped land* is the sum of arable land plus land under permanent

crops. Economic land excludes unused but potentially productive land, built-on areas, wasteland, parks, ornamental gardens, roads, lanes, and barren land. Data are for 1978.

Sources

According to FAO, *arable land* refers to land under temporary crops (double-cropped areas are counted only once), temporary meadows for mowing or pasture, land under market and kitchen gardens (including cultivation under glass), and land temporarily fallow or lying idle. Within the scope of this definition there may be wide variation among reporting countries; the dividing line between temporary and permanent meadows, for instance, is rather indefinite; the period of time during which the unplanted land is considered fallow varies widely.

Land under permanent crops refers to land cultivated with crops that occupy the land for long periods and need not be replanted after each harvest, such as cocoa, coffee, and rubber; it includes land under shrubs, fruit trees, nut trees and vines, but excludes land under trees grown for wood or timber. A problem arises here as to whether bamboo, wattle, and cork oak plantations should be included under this heading or under forest land.

Permanent meadows and pastures refers to land used permanently (5 years or more) for herbaceous forage crops, either cultivated or growing wild (wild prairie or grazing land). Permanent meadows and pastures on which scattered trees and shrubs are grown should also be included in this category although some reporting countries include them under forests.

Forest land refers to land under natural or planted stands of trees, whether or not productive. It includes land from which forests have been cleared but which will be reforested in the foreseeable future.

22. Cropped land irrigated

Percentage of cropped land irrigated during 1978 is calculated as area irrigated divided by cropped land (see *Economic land in crops*, for definition of cropped land). According to FAO, data on irrigation is related to areas purposely provided with water, including land flooded by river water, for crop production or pasture improvement, whether this area is irrigated several times or only once during the year.

23. Cropped land per person

Average annual area of cropped land per person in hectares during 1978 is calculated as cropped land divided by the 1978 population (see *Economic land in crops*, for definition of cropped land).

24. Fertilizer use

Consumption of fertilizer is calculated as nitrogen, phosphorus, and potassium in kilograms per hectare of cropped land during 1978 (see *Economic land in crops*, for definition of cropped land).

Fertilizer
FAO. *Fertilizer Yearbook 1979*. Rome: 1980.

25. Tractor density

Number of tractors per thousand hectares is calculated as number of tractors in 1978 divided by cropped land 1978 (see *Economic land in crops* for definition of cropped land). According to FAO, tractors comprise wheel

Tractors
FAO. *Production Yearbook 1979*, Vol. 33. Rome: 1980.

ANNEX E

Bibliography

BIBLIOGRAPHY

Afghan Demographic Studies. National Demographic and Family Guidance Survey of the Settled Population of Afghanistan. Sponsored by the Government of Afghanistan and USAID. State University of New York at Buffalo: Department of Sociology, 1975.

AID/Washington. "Afghanistan: Kajakai Hydroelectric Power Plant", Amendment I, II and III, Capital Assistance Paper, November 1974.

AID/Washington. Afghanistan: Kajakai Hydroelectric Plant, Capital Assistance Paper, April 1967.

AID/Washington. Afghanistan: Fertilizer Sector Loan, October 1972.

AID/Washington. Approval of Amended Project Paper for Afghan Family Guidance Association Project, Action Memorandum, February 1978.

AID/Washington. "Afghanistan-Agricultural Inputs, Meeting of the Development Joint Staff Committee", June 1975.

AID/Washington. Afghanistan: Kajakai Hydroelectric Project, Proposal and Recommendations for the Review of the Development Loan Committee, June 1972.

AID/Washington. Audit on the Implementation of the AID Program in Afghanistan, June 1977.

AID/Washington. Audit Report: Comprehensive Review of United States Assistance in the Helmand - Arghandab Valley Region (HAVA), Afghanistan, October 1972.

AID/Washington. Audit Report: Examination of USAID Assistance to the Afghanistan Education Sector, September 1972.

AID/Washington. Kajakai Hydro-Electric Plant (Amendment II), Proposal and Recommendations for the Review of the Development Loan Committee, Capital Assistance Paper, April 1974.

AID/Washington. National Development Training, Proposal, Project Authorization, March 1972.

AID/Washington. Office of the Auditor General Audit Report: Comprehensive Review of US Assistance in the Helmand Arghandab Valley Region, Afghanistan, October 1973.

AID/Washington. Audit on the Implementation of AID Program in Afghanistan, June 1977.

AID/Washington. Statistics and Reports Division: US Foreign Assistance and Assistance from International Organizations - Obligations and Loan Authorizations, July 1, 1945 - June 30, 1962.

AID/Washington. Development Assistance Program, FY F5, Afghanistan, January 1975.

AID/Washington. Kabul: Agricultural Credit, Project Assistance Paper, October 1987.

AID/Washington. US Overseas Loans and Grants - Series of Yearly Dates, Volume I, Near East and South Asia, Obligations and Loan Authorization, FY 1946-FY 1987, PPC/PB/RPA.

AID/Washington. Proposal and Recommendations for the Review of the Development Loan Committee, Afghanistan - Agricultural Inputs, Capital Assistance Paper, June 1975.

American Council of Voluntary Agencies for Foreign Service, Inc. Development Assistance Programs of US Non-Profit Organizations in Afghanistan, December 1974.

American University. Participant Assessment of USAID Afghanistan, February 1971.

Asian Development Bank. Feasibility Study for Afghanistan of Spillway Gates at Kajakai Reservoir Afghanistan, San Francisco: International Engineering Co., Inc., August 1971.

Atkins, Thurston. Elementary and Secondary Education, Columbia University, Teachers College, February 1978.

Atkins, Thurston A. Final Report on Elementary and Secondary Education (Curriculum and Textbook), New York: Columbia University Teachers College, February 1978.

Baron, A. R. "Available Data on Farm Income in the Helmand - Arghandab Valley", USAID, November 1970.

Baron, A. R. General Background Paper on Development in the Helmand - Arghandab Valley in Southwest Afghanistan, USAID, April 1971.

Baren, Lloyd. Sector Analysis - Helmand - Arghandab Valley Region, February 1973.

Barbour, Ernest J. et al. In-Depth Evaluation of the Central Helmand Drainage Project (Phase II), USAID/Kabul, July 1976.

Beasley, W. B. Rogers, et.al. An Evaluation of the Afghanistan Family Guidance Association Clinic Expansion, American Public Health Association for USAID/Afghanistan, July 1977.

Blumhagen, R. V. and Jeanne. Family Health Care: A Rural Health Care Delivery System, Wheaton, Illinois: Medical Assistance Programs, Inc., 1974.

Brown, H. Emmett. Termination of Assignment Report, (USAID/Afghanistan), 1962.

Brown, Vince. "Reorganization of Task Forces", HAVA, May 1974.

AID/Washington Capital Assistance Paper. AID, Afghanistan - Fertilizer Sector Loan, November 1972.

Care-Medico. Survey of Village Women - October 1976 (Mohammad Agha District, Logar Province, Afghanistan Studies, University of Nebraska/Omaha. September 1977.

Carner, George, et.al. In Depth Evaluation of the Basic Health Services Project, AID, October 1977.

Carson, R. G. Report of Visit to the US Engineering Team,Kabul, Afghanistan, Kabul Afghanistan-American Program Steering Committee, March 1970.

Checchi and Co. Final Report. Afghanistan Industrial Development Project, Washington, DC, September 1974.

Checchi and Co. Joint Evaluation, Afghanistan Fertilizer Company, November 1975.

Checchi and Company. Report on Agribusiness Research Study, USAID/Kabul, Washington, DC: September 1974.

Checchi and Company. Work Performed by the Advisory Team, AFC Management Project Evaluation, November 1975.

Clapp-Wincek, Cynthia. The Helmand Valley Project in Afghanistan, AID Evaluation Special Study No. 18, USAID, December 1983.

Dalton, James. "Area Development Projects - Evaluation Criteria", USAID, April 1981.

Dawlaty, K. and Selah Z. Wheat Farming in Afghanistan, Kabul University June 1970.

De Groot, Leslie J. Terminal Report: Public Health and Sanitation Project, USAID/Afghanistan, May 1956.

"Democracy and the Military Base of Power", Middle East Journal 22(1):29-44 1968.

Denny, Kevin M. and Timothy N. Warner. The Village Health Worker: The Need and Potential as Determined by Survey in Three Provinces of Afghanistan, Cambridge, Mass., Management Sciences for Health, January 1977.

Department of Health, Education and Welfare. Evaluation of the Afghan Family Guidance Association, Afghanistan: Initial Report, April 1978.

AID/Washington Bureau for Near East. Rural Primary Schools II, Addendum to Project Paper: Rural Primary Schools II, May 18, 1976.

Dent, P. A., Electric Power Problems, Kandahar Girishk and Arghandab, Afghanistan, April 1962.

Development Alternatives, Inc. Evaluation of the Rural Works Project, Phase I for USAID/Afghanistan, Washington, DC, August 1976.

Dupree, Louis. Afghanistan. Princeton University Press, Princeton, New Jersey, 1980.

Ehrhardt, Lawrence M. End-of-Tour Report, (Department of the Interior, Bureau of Reclamation), August 1971.

Evaluation Technologies, Inc. Afghanistan: A Country Profile, USAID, July 1977.

Experience, Inc. Irrigated Agriculture in Afghanistan, December 1978.

Farouq, Chulam, United Nations: Report on UNFDAC Household Survey - Upper Helmand, January 1978.

Fry, Maxwell. "Afghanistan's Financial Sector: High Time for Development", USAID/Kabul, January 1973.

Fry, Maxwell. Demand for Money, The Financial System and Economic Development in Afghanistan USAID/Kabul, 1972.

Fry, Maxwell. "Report on a Survey of Business and Credit Conditions in Afghanistan", USAID/Kabul, January 1973.

Furnia, A. H. Syncrisis: The Dynamics of Health, Afghanistan, US Office of Industrial Health, 1978.

George Washington University. Afghan Legal Training Program: Report on the Substantive Aspects of the Program, Washington, DC, 1974 - 1976.

Gibson, R. E. Higher Education--Kabul University, Nebraska University, February 1976.

Grassmuch, et al."Political Modernization in Afghanistan: The Amanullah Reforms", (1969), 99-148, 1969.

Hakimi, M. Y. The Nature of Livestock Marketing and Meat Consumption per Capita in Afghanistan, USAID/Afghanistan, November 1976.

Harza Overseas Engineering. Kajakai Service Area Power Market Study (Phase I), June 1976.

Hooker, Ray and Scott, Richard. "The Switch from Mexipak to Local Varieties of Wheat: Interviews in the Shamalan", February 1974,

Humlum. "Le Project de la Vallee du Hilmend Roud", 1959.

Hunte, P. A. Women and the Development Process in Afghanistan, AID Project: Regional Training for Women, July 1978.

ILO Employment Mission to Afghanistan Working Paper #10 Miscellaneous Papers prepared for Mission Report.

Koenig, Nathan and Hunter, Harold. A Wheat Stabilization Program for Afghanistan, USAID/Afghanistan, 1973.

Lee, Gary and Smith, R. Jeffrey. "Soviet Official Threatens Delay in Afghan Pullout", July 24, 1988.

Luerman, Samuel S. Afghanistan: Population and Development in the "Land of Innocence", New York: The Population Council, June 1980,

Lustig, Theodore, et.al. Joint Evaluation, Afghan Fertilizer Company and Checchi and Company Advisory Team, USAID/Kabul November 1975.

Management Science for Health. A Field Survey of Health Needs, Practices and Resources in Rural Afghanistan: A Summary Report, USAID/Kabul, July 1975.

Maybury-Lewis, David, et.al. The Social Impact of Development on Ethnic Minorities, Cambridge: Cultural Survival, Inc., March 1980.

Mitchell, Louis and Garner, David. An Assessment of the Helmand Arghandab Valley Region.

Norvell, Douglas. Agricultural Credit in Afghanistan: A Review of Progress and Problems from 1954 until 1972, USAID/Kabul, November 1972, in Small Farmer Credit in West Asia, AID. DOS, Washington, DC, February 1973.

Nyrop, Richard F. and Seekins, Donald (eds). Afghanistan - A Country Study, Foreign Area Studies, The American University, January 1986.

O'Conner, Ronald W. Implementing A National Rural Health System: Management Experiences from Afghanistan, Cambridge: Management Sciences for Health, 1979.

O'Reilly, Arlene. Evaluation History of AID Involvement in Helmand - Arghandab Valley, Afghanistan, Washington, DC: September 1979.

Paige, Donald et al. Radio Education Teacher Training, Final Report, Southern Illinois University, March 1984.

Pillsbury, H. W. "Notes on Horticultural Work in the HAVA", USAID/Kabul, May 1973.

Population Crisis Committee, No. 20. "Population Briefing Paper", June 1988.

Qaheri, A. M. and Selah, Z. "Seasonal Price Patterns for Eight Agricultural Commodities, Kabul Retail Market", November 1971.

Reform and Rebellion in Afghanistan 1919-1929: King Amanullah's Failure to Transform a Tribal Society, in press.

Robert R. Nathan and Associates, Inc. Sectoral Planning Study of Afghanistan Agriculture, Asian Development Bank, June 1971.

Rogier, Jean F. and Kraft, Mary Jo. A Health Survey in Afghanistan, USAID/Afghanistan 1963.

Scott, Richard. Helmand Valley Wheat Crop 1973, Memo, USAID/Kabul, November 1973.

Silver, Joan. "Case Studies on the Effectiveness of Development Assistance", USAID, August 1979.

Spain, J. The Way of the Pathans, London, 1962.

Spitler, James F. and Nancy Frank. Afghanistan: A Demographic Uncertainty, (Internal Research Document: No. 6), US Dept. of Commerce, Bureau of the Census, September 1978.

Stevie, Phyllis A. Participant Follow-Up. The University of Wyoming Contract Team 1953-1959, September 1969.

Svendsen, M. T. Some Aspects of Irrigation Technology in Afghanistan, Colorado State University, January 1977.

TAICH Country Report. Development Assistance Programs of US Non-Profit Organizations in Afghanistan, December 1974.

"Tribal Traditions and Modern Nationhood: Afghanistan", Asia: A Selection of papers delivered before the Asia Society, 1:1-12 New York, 1964c.

Page Not Available

USAID/Kabul. End-of-Tour Report (Energy Projects), February 1971.

USAID/Kabul. Farm Economic Survey of the Helmand Valley, 1975.

USAID/Kabul. Financial Administration Improvements, Project Appraisal Report, June 1973.

USAID/Kabul. Helmand-Arghandab Valley Regional Development (Financial Management), December 1969.

USAID/Kabul. Helmand-Arghandab Valley Regional Development (Water Resources Advisor Group), Project Appraisal Report, April 1969.

USAID/Kabul. Afghanistan Technical Support. Agriculture: Beekeeping, PIOT December 1973.

USAID/Kabul. Soil and Water Resources Survey of the Helmand-Arghandab Valleys, Project Paper, February 14, 1975.

USAID/Kabul. Financial Administration Improvement, Project Appraisal Report, April 1973.

USAID/Kabul. Health Family Planning, Auxiliary Nurse Midwife Training, Project Appraisal Report, May 1976.

USAID/Kabul. Health/Family Planning-Management for Rural Health, Project Appraisal Report, May 1976.

USAID/Kabul. Project Appraisal Report. Helmand-Arghandab Valley Agriculture Finance Agency, October 1974.

USAID/Kabul. Helmand-Arghandab Valley Agricultural Finance Agency, Project Appraisal Report, November 1971.

USAID/Kabul. Helmand-Arghandab Valley Electric Power, November 1970.

USAID/Kabul. In-Depth Evaluation of the Central Helmand Drainage Project, July 1976.

USAID/Kabul. Industrial Development Project, Non-Capital Project Paper, USAID/Afghanistan, August 1970.

USAID/Kabul. Economic Planning Project, Non-Capital Project Paper, August 1969.

USAID/Kabul. Helping People, Kabul, 1976

USAID/Kabul. Helmand Arghandab Valley Regional Development (Agricultural Advisory Group), Project Appraisal Report May 1970

USAID/Kabul. Helmand Reconnaissance Mission Project, 1978.

USAID/Kabul. Higher Education, Kabul University, Revised Proposal, February 1973.

USAID/Kabul. In-Depth Evaluation of the Central Helmand Drainage Project, (Phase I), July 31, 1976.

USAID/Kabul. Industrial Development, Non Capital Project Paper, August 1970.

USAID/Kabul. Integrated Wheat Development, Project Paper, Centralization, August 1977.

USAID/Kabul. Kandahar Diesel Electric Generators, Project Appraisal Report, May 1970.

USAID/Kabul. Kajakai Hydroelectric Power, Project Appraisal Report, November 1970.

USAID/Kabul. Kandahar Diesel Electric Generators, Project Appraisal Report, May 1970.

USAID/Kabul. Kandahar Diesels, Project Appraisal Report, August 1972.

USAID/Kabul. Management for Rural Health and Family Planning Services, Non Capital Project Paper, January 1973.

USAID/Kabul. Management, Support Fortune Fertilizer Co., PIO/T, April 1973.

USAID/Kabul. Management Support for Afghan Fertilizer Company: Amended Project Paper, April 1976.

USAID/Kabul. National Agriculture Development Extension, Project Appraisal Report April 1970.

USAID/Kabul. National Agriculture Development-Extension, Project Appraisal Report, May 1970.

USAID/Kabul. National Agriculture Development - Project Appraisal Report, April 1969.

USAID/Kabul. National Agriculture Development Research, Technical Assistance Project, Case History, April 1963.

USAID/Kabul. National Agriculture Development Services, Project Paper, November 1969.

USAID/Kabul. National Agriculture Development (Research) Project Appraisal Report, August 1971.

USAID/Kabul. National Agriculture Development (Research), Technical Assistance Project, Case History, April 1963.

USAID/Kabul. National Agriculture Research and Facilities Development, Project Paper, June 1969.

USAID/Kabul. Population/Family Planning, Project Appraisal Report, June 1973.

USAID/Kabul. Population/Family Planning Project, Non-Capital Project Paper, August 1974.

USAID/Kabul. Position Paper on an Accelerated Helmand Valley Development, February 1965.

USAID/Kabul. Proposal and Recommendations for the Review of the Development Loan Committee-Afghanistan Fertilizer Sector Loan, October 1972.

USAID/Kabul. Report of Survey and Recommendations on an Agricultural Research in Afghanistan, October 1972.

USAID/Kabul. Report on Evaluation of the Fixed Amount Reimbursement (FAR) Procedure as Applied to Projects In Afghanistan, March 1977.

USAID/Kabul. Rural Primary School, Project Paper, January 1975.

USAID/Kabul. Rural Primary Schools, Project Paper, May 1976.

USAID/Kabul. Statistical Information Systems Development, Project Appraisal Report, September 1975.

USAID/Kabul. Technical Education, Non Capital Project Paper, August 1969.

USAID/Kabul. Technical Education Faculty of Engineering, Project Appraisal Report, June 1970.

USAID/Kabul. Technical Education, Project Appraisal Report, March 1972.

USAID/Kabul. Technical Education, Technical Assistance Project History and Analysis Report, January 1965.

USAID/Kabul. Technical Education: (AIT Technical Assistance) Project Appraisal Report, November 1968.

USAID/Kabul. USAID - Assisted Development in the Helmand-Arghandab Valley, December 1973.

USAID/Kabul. WID and the Afghanistan Context, Airgram, January 1978.

USAID/Kabul. Case History Report of Helmand Valley Water Investigation, January 1963.

USAID/Kabul. Economic Planning, Project Appraisal Report, Contractor: Robert Nathan, 1971.

USAID/Kabul. Elementary and Secondary Education (Curriculum and Textbook), Project Appraisal Report, August 1971.

USAID/Kabul. Elementary and Secondary Education (Curriculum and Textbook), Project Paper, August 1969.

USAID/Kabul. Higher Education - Kabul University, Revised Project Proposal, February 1973.

USAID/Kabul. National Development Training, Evaluation, September 1975.

USAID/Kabul. Soil and Water Resources Survey of the Helmand/Arghandab Valleys, Project Paper, February 14, 1975.

USAID/Kabul. Statistical Information Systems Development, Preliminary Project Proposal, January 1971.

US Bureau of Reclamation. Helmand Arghandab Valley Regional Development Project-Water Resources Advisory Activity, Quarterly Progress Report, December 1973.

USOM/Afghanistan. Afghanistan Builds on Ancient Civilization, 1959/60.

Wiber, Donald N. "The Structure of Islam in Afghanistan", Middle East Journal 6(1):41-48,1952.

Whiting, G. C. and Hughes, R. B. The Afghan Farmer, Report of a Survey, Washington, DC: Robert R. Nathan Associates, Inc., October 1971.

World Bank 1978 Afghanistan: The Journey to Economic Development Report of World Bank mission to Afghanistan during 1977

Young, Everett, J. "Report on a Trip to Afghanistan: Study of Marketing and Distribution Through Cooperatives", Washington DC: ACDI, March 1969.

ANNEX F

Persons Consulted

ANNEX F

Persons Consulted

Mr. Johathan Addleton
Program Officer
USAID, Pakistan

Mr. Dean Alter
Development Planning Officer
Asia Bureau, AID

Mr. Chester Bell
former Deputy Director
USAID, Afghanistan

Anne Wilien Bijleveld
Deputy Chief of Mission
UN High commission for Refugees
Islamabad, Pakistan

Mr. Ronald Bjorkland
Project officer
AID, Afghanistan
Islamabad, Pakistan

Mr. Vincent Brown
former Mission Director
USAID, Afghanistan

Dr. Esmail Burhan
Program Coordinator
Center for Afghan Studies
University of Nebraska, Omaha

Mr. Gerald Boardman
Chief of Party
Education Support Project
Peshwar, pakistan

Dr. Carol Carpenter
Monitoring and Evaluation Officer
AID, Afghanistan
Islamabad, Pakistan

Dr. Raymond Carpenter
Director
International Agricultural Programs
University of Wyoming
Laramie, Wyoming

Ms. Cindy Clapp-Wincek
Planning Officer
Center for Development Information and Evaluation
AID Washington,D.C.

Mr. Henry Cushing
AID Regional Affairs Officer
Peshwar, Pakistan

Mr. Owen Cylke
former Deputy Director
USAID, Afghanistan

Mr. Peter Davies
Chief Program Officer
USAID Pakistan

Ms. Beverly Eighmy
Assistant Project Officer
AID, Afghanistan
Islamabed, Pakistan

Mr. Grant Farr
Professor of Sociology
Portland State University
Portland, Oregon

Mr. Raymond Forte
Representative, UN Food and
Agriculture Organization
Islamabad, Pakistan

Mr. John Geter
former Team Leader
Soil Conservation Service Team
Helmand Valley Authority, Afghanistan

Mr. Milton Girtch
former Regional Sales Manager
Afghan Fertilizer Company

Dr. Thomas E. Gouttierre
Director of Afghan Studies
University of Nebraska

Mr. John Goving
Program Officer
Office of the AID Representative for Afghanistan
Islamabad, Pakistan

Mr. John Gunning
Chief Program Office
Office of The AID
Representative, Afghanistan
Islamabad, Pakistan

Mr. Selig A. Harrison
Senior Associate
Carnegie Endowment for International Peace

Mr. Bartlett Harvey
former Mission Director
USAID, Afghanistan

Mr. Homer M. Hepworth
former Agriculture Advisor
USAID Afghanistan

Mr. Francis Hicks
former Regional Sales Manager
Afghan Fertilizer Company

Mr. Ross Masood Husain
Institute of Regional Studies
Islamabad, Pakistan

Mr. Zalmay M. Khalilzad
Advisor on Afghanistan to
Undersecretary of State for Political Affairs
Washington, D.C.

Ms. Elizabeth Kvitashvili
Backstop Officer for AID Afghanistan
AID, Washington, D.C.

Ms. Grace Langley
former Chief,
Health and Population Division
USAID, Afghanistan

Dr. Anthony Lanza
former Chief, Education Division
USAID, Afghanistan

Dr.Charles Lasky
former Director
CARE-Medico, Afghanistan

Mr. Richard Lawrence
Area Commodity Manager
AID Regional Office
Peshwar, Pakistan

Mr. Gary Lewis
Assistant Projects Officer
AID, Afghanistan
Islamabad, Pakistan

Ms. Val Mahan
Speical Projects Officer
AID, Afghanistan
Islamabad, Pakistan

Mr. Hans Manz
Chief of Party
American Manufacturers Export Group
Peshwar, Pakistan

Mr. John Miller
AID Deputy Representative, Afghanistan
Islamabad, Pakistan

Mr. Joseph Motheral
former Chief, Agricultural Division
USAID, Afghanistan

Mr. Calvin Morten
former Deputy Chief, Agricultural Division
USAID, Afghanistan

Mr. Robert Nathan
former President
Robert Nathan Associates
Washington, D.C.

Dr. William Oldham
Chief of Party
Management Sciences for Health Project
Peshwar, Pakistan

Dr. John Ottenberg
Animal Holding Facility
AID Regional Affairs Office
Peshwar, Pakistan

Mr. Albert J. Nehoda
Field Officer
AID Regional Affairs Office
Peshwar, Pakistan

Mr. Arthur Reich
former Deputy Program Officer
USAID, Afghanistan

Ms. Jane Schuler-Repp
UNHCR-Data Officer
Islamabad, Pakistan

Mr. Andrew Rude
Assistant Project Officer
AID, Afghanistan
Islamabad, Pakistan

Mr. Mohammod Haniff Sidiq
former President for Administration
Helmand Valley Authority

Mr. Atta Ullah Sidiq
Afghan student in the U.S.
Washington, D.C.

Mr. John Standish
former Chief, Capital Development and Engineering
USAID, Afghanistan

Mr. John Soden
Executive Officer
Agriculture Sector Project
Peshwar, Pakistan

Mr. Maurice Summan
former Managing Director
Afghan Fertilizer Company

Ms. Diane Swing
Afghanistan Desk
AID, Washington, D.C.

Mr.Charles Sykes
Medico Service of Care Inc.
Washington, D.C.

Mr. Thurston Teele
former consultant on industrial development
USAID, Afghanistan

Mr. Cecil Vyhara
former Assistant Director for Development Planning
USAID, Afghanistan

Ms. Nancy Waldhaus
Public Health Consultant
Islamabad, Pakistan

Mr. John Wilson
former Chief Agricultural Division
USAID, Afghanistan